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Addendum #2 to: 2019 Development Charges Background Study

Town of Petawawa

For Public Circulation and Comment

July 10, 2019

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1. Background

Commensurate with the provisions of the *Development Charges Act* (D.C.A.), 1997, the Town of Petawawa (Town) has undertaken a Development Charges Background Study (D.C.B.S.) and has distributed the study and draft by-law to the public. The following provides a summary of the key dates in the Development Charges (D.C.) by-law process:

- May 15, 2019 – Release of the D.C.B.S.
- June 14, 2019 – Release of Addendum #1 to the May 15th D.C.B.S.
- June 17, 2019 – Public Meeting
- July 10, 2019 – Release of Addendum #2 to the May 15th D.C.B.S.
- July 15, 2019 – Anticipated passage of D.C. By-law

The purpose of this addendum to the D.C.B.S. is to provide for revisions to the growth forecast, as it relates to the projected institutional population, as well as to provide for corrections to the anticipated amount of non-residential development included in the calculation for municipal water and wastewater services. These revisions marginally impact the calculated development charges presented at the public meeting on June 17, 2019.

The revisions are detailed in the subsequent sections of this report, and will form part of the D.C.B.S. for Council's consideration and approval prior to adoption of the D.C. By-law on July 15, 2019.

2. Discussion

This section of the addendum report provides an explanation for the above-noted revisions.

2.1 Growth Forecast Update

Subsequent to the issuance of the May 15, 2019 D.C.B.S. and Public Meeting on June 17, 2019, further review of the growth forecast by Town staff uncovered a discrepancy in the reporting of institutional population by Statistics Canada Census for the Town of Petawawa. According to Town staff, there exists no institutional housing or population



outside of Garrison Petawawa (Garrison). Moreover, the Garrison is not expected to experience further growth over the forecast period.

To rectify this discrepancy, the growth forecast in the D.C.B.S. has been revised to remove the forecast institutional population and housing growth for the 2016-2036 period. To maintain the Town's overall population and housing targets to 2036, a greater amount of net population growth in private households is projected. This change in treatment of institutional population in the growth forecast affects the following elements of the D.C. calculation:

- Historic service level calculations (as discussed in section 4.9.1 of the D.C.B.S.)
 - The maximum historic service level cap for all services increases with the higher population forecast. This change serves to increase the eligible amount of collection materials for Library Services, as this provision is developed based on maintaining historic levels of service for the 10-year forecast period.
- Benefit to existing deductions (as discussed in section 4.9.3 of the D.C.B.S.)
 - The benefit to existing deductions for a number of capital projects included in the D.C.B.S. is based on the relative share of incremental population growth to the existing 2019 population. As a result, the increase in incremental population growth decreases the benefit to existing deduction for these capital projects. These changes specifically impact capital projects for Parks & Recreation, Roads and Related, and Fire services within the D.C.B.S.
- Attribution of D.C. recoverable costs between residential and non-residential types of development.
 - For most services included in the D.C.B.S., the attribution of D.C. recoverable costs between residential and non-residential types of development is based on the ratio of forecast incremental population and employment growth over the period. Due to the increase in the amount of net population growth within the revised growth forecast, the share of D.C. recoverable costs attributable to residential development types increases.

These changes serve to marginally increase the residential development charge and decrease the non-residential charge, from the amounts presented at the June 17, 2019 public meeting.



2.2 Correction to the Amount of Anticipated Non-residential Development included in the D.C. Calculation for Water and Wastewater Services

The D.C. calculations for Water and Wastewater services within the May 15th D.C.B.S. utilized estimates of gross floor area for the 2019-2036 period that were understated by approximately 70,500 square feet. These estimates were incorrectly applied from those contained in Schedule 10c of the D.C. growth forecast. This error has been corrected and results in a decrease in the calculated non-residential development charges presented at the June 17, 2019 public meeting.

2.3 Impacts on the Calculated Development Charge

The revisions presented in sections 2.1 and 2.2. above impact the calculated charges in the D.C.B.S. Table 1 compares the Town's current development charges with those presented at the June 17, 2019 public meeting, and the amended charges as contained herein. The comparison is provided for a single detached residential dwelling unit, and per square foot (sq.ft.) of non-residential gross floor area (G.F.A.) for all non-residential development types.

By comparison to the charges presented at the public meeting, the D.C. for a single detached residential unit within the fully serviced urban area increases by \$12, from \$5,513/unit to \$5,525/unit. For non-residential development the charge would decrease by \$0.20/sq.ft. of G.F.A., from \$3.39/sq.ft. to \$3.19/sq.ft.

By comparison to the Town's current D.C. By-Law, the total amended charge for a single detached residential unit within the fully serviced urban area increases by \$350, from \$5,175/unit to \$5,525 unit. For non-residential development within the urban serviced area, the charge would decrease by \$0.06/sq.ft. of G.F.A., from \$3.25/sq.ft. to \$3.19/sq.ft.



Table 1
Comparison of Calculated D.C.s

Service	Current	Calculated (June 14, 2019)	Calculated (July 9, 2019)	Change (\$), June 14, 2019 vs. July 10, 2019	Change (%), June 14, 2019 vs. July 10, 2019
Municipal Wide Services:					
Transportation Services	\$ 1,473	\$ 1,320	\$ 1,359	\$ 39	3.0%
Fire Protection Services	\$ 289	\$ 151	\$ 156	\$ 5	3.3%
Parks and Recreation	\$ 708	\$ 1,266	\$ 1,264	\$ (2)	-0.2%
Library Services	\$ 330	\$ 212	\$ 213	\$ 1	0.5%
Administration - Studies	\$ 159	\$ 147	\$ 151	\$ 4	2.7%
Total Municipal Wide Services	\$ 2,959	\$ 3,096	\$ 3,143	\$ 47	1.5%
Urban Services:					
Wastewater Services	\$ 1,847	\$ 1,942	\$ 1,914	\$ (28)	-1.4%
Water Services	\$ 369	\$ 475	\$ 468	\$ (7)	-1.5%
Total Area Specific Services	\$ 2,216	\$ 2,417	\$ 2,382	\$ (35)	-1.4%
Grand Total - Rural Area	\$ 2,959	\$ 3,096	\$ 3,143	\$ 47	1.5%
Grand Total - Urban Area	\$ 5,175	\$ 5,513	\$ 5,525	\$ 12	0.2%

Service	Current	Calculated (June 14, 2019)	Calculated (July 9, 2019)	Change (\$), June 14, 2019 vs. July 10, 2019	Change (%), June 14, 2019 vs. July 10, 2019
Municipal Wide Services:					
Transportation Services	\$ 1.40	\$ 1.24	\$ 1.17	\$ (0.07)	-5.6%
Fire Protection Services	\$ 0.13	\$ 0.14	\$ 0.13	\$ (0.01)	-7.1%
Parks and Recreation	\$ 0.06	\$ 0.10	\$ 0.10	\$ -	0.0%
Library Services	\$ 0.03	\$ 0.02	\$ 0.02	\$ -	0.0%
Administration - Studies	\$ 0.15	\$ 0.14	\$ 0.13	\$ (0.01)	-7.1%
Total Municipal Wide Services	\$ 1.77	\$ 1.64	\$ 1.55	\$ (0.09)	-5.5%
Urban Services:					
Wastewater Services	\$ 1.25	\$ 1.42	\$ 1.33	\$ (0.09)	-6.3%
Water Services	\$ 0.23	\$ 0.33	\$ 0.31	\$ (0.02)	-6.1%
Total Area Specific Services	\$ 1.48	\$ 1.75	\$ 1.64	\$ (0.11)	-6.3%
Grand Total - Rural Area	\$ 1.77	\$ 1.64	\$ 1.55	\$ (0.09)	-5.5%
Grand Total - Urban Area	\$ 3.25	\$ 3.39	\$ 3.19	\$ (0.20)	-5.9%



3. Changes to the Background Report

Based on the foregoing, the following revisions are made to the pages within the May 15, 2019 D.C.B.S., as amended. Accordingly, the revised pages are appended to this report:

- Page 1-3 – Revised to reflect this addendum;
- Pages 3-3, 3-4, and 3-6 – Reissued to reflect changes described in section 2.1 of this addendum;
- Chapter 5 – Reissued to reflect changes described in sections 2.1 and 2.2 of this addendum;
- Chapter 6 – Updated to reflect changes in the calculated development charges;
- Pages 8-3 and 8-4 – Updated reflective of impacts of changes discussed in sections 2.1 and 2.2 of this addendum;
- Pages A-2 to A-6 (inclusive) – Reissued to reflect changes discussed in section 2.1 of this addendum;
- Pages B-2 to B-15 (inclusive) – Updated reflective of impacts of changes discussed in sections 2.1 and 2.2 of this addendum;
- Page C-3 – Updated reflective of impacts of changes discussed in sections 2.1 and 2.2 of this addendum; and
- Appendix E – Revised draft D.C. By-Law (updated Schedule “B” of the by-law).

4. Process for Adoption of the D.C. By-law

The revisions provided herein form the basis for the D.C. By-Law and will be incorporated into the D.C.B.S. to be provided to Council and the general public prior to Council’s consideration and adoption of the proposed D.C. By-Law on July 15, 2019.

If Council is satisfied with the above noted changes to the D.C.B.S. and D.C. By-Law, then prior to By-Law passage Council must:

- Approve the Development Charges Background Study, as amended;
- Determine that no further public meetings are required on the matter; and
- Adopt the new Development Charges By-Law.



Appendix A

Amended Pages



Process Steps	Dates
6. Statutory notice of Public Meeting advertisement placed in newspaper(s)	20 days prior to public meeting
7. Amendment to the D.C. Background Study	June 14, 2019
8. Public Meeting of Council	June 17, 2019
9. 2 nd amendment to the D.C. Background Study	July 10, 2019
10. Council considers adoption of D.C. background study and passage of by-law	July 15, 2019
11. Newspaper notice given of by-law passage	By 20 days after passage
12. Last day for by-law appeal	40 days after passage
13. Town makes available D.C. pamphlet	By 60 days after in force date



Table 3-1
Town of Petawawa
Residential Growth Forecast Summary

	Year	Population (Including Census Undercount) ¹	Excluding Census Undercount			Housing Units					Person Per Unit (P.P.U.): Total Population/ Total Households
			Population	Garrison Petawawa Population	Population Excluding Garrison Petawawa	Singles & Semi-Detached	Multiple Dwellings ²	Apartments ³	Other	Total Households	
Historical	Mid 2006	15,050	14,651	6,000	8,651	4,060	730	495	35	5,320	2.754
	Mid 2011	16,420	15,988	6,000	9,988	4,591	847	584	15	6,037	2.648
	Mid 2016	17,650	17,187	6,000	11,187	4,845	915	555	20	6,335	2.713
Forecast	Mid 2019	17,950	17,475	6,000	11,475	5,007	937	608	20	6,572	2.659
	Mid 2029	19,240	18,732	6,000	12,732	5,833	954	621	20	7,428	2.522
	Mid 2036	20,540	19,999	6,000	13,999	6,334	993	686	20	8,033	2.490
Incremental	Mid 2006 - Mid 2011	1,370	1,337	0	1,337	531	117	89	-20	717	
	Mid 2011 - Mid 2016	1,230	1,199	0	1,199	254	68	-29	5	298	
	Mid 2016 - Mid 2019	300	288	0	288	162	22	53	0	237	
	Mid 2019 - Mid 2029	1,290	1,257	0	1,257	826	17	13	0	856	
	Mid 2019 - Mid 2036	2,590	2,524	0	2,524	1,327	56	78	0	1,461	

Source: Population forecast derived from County of Renfrew Official Plan (O.P.A. No. 25) for the Town of Petawawa.

¹ Census undercount estimated at approximately 2.7%. Note: Population including the undercount has been rounded.

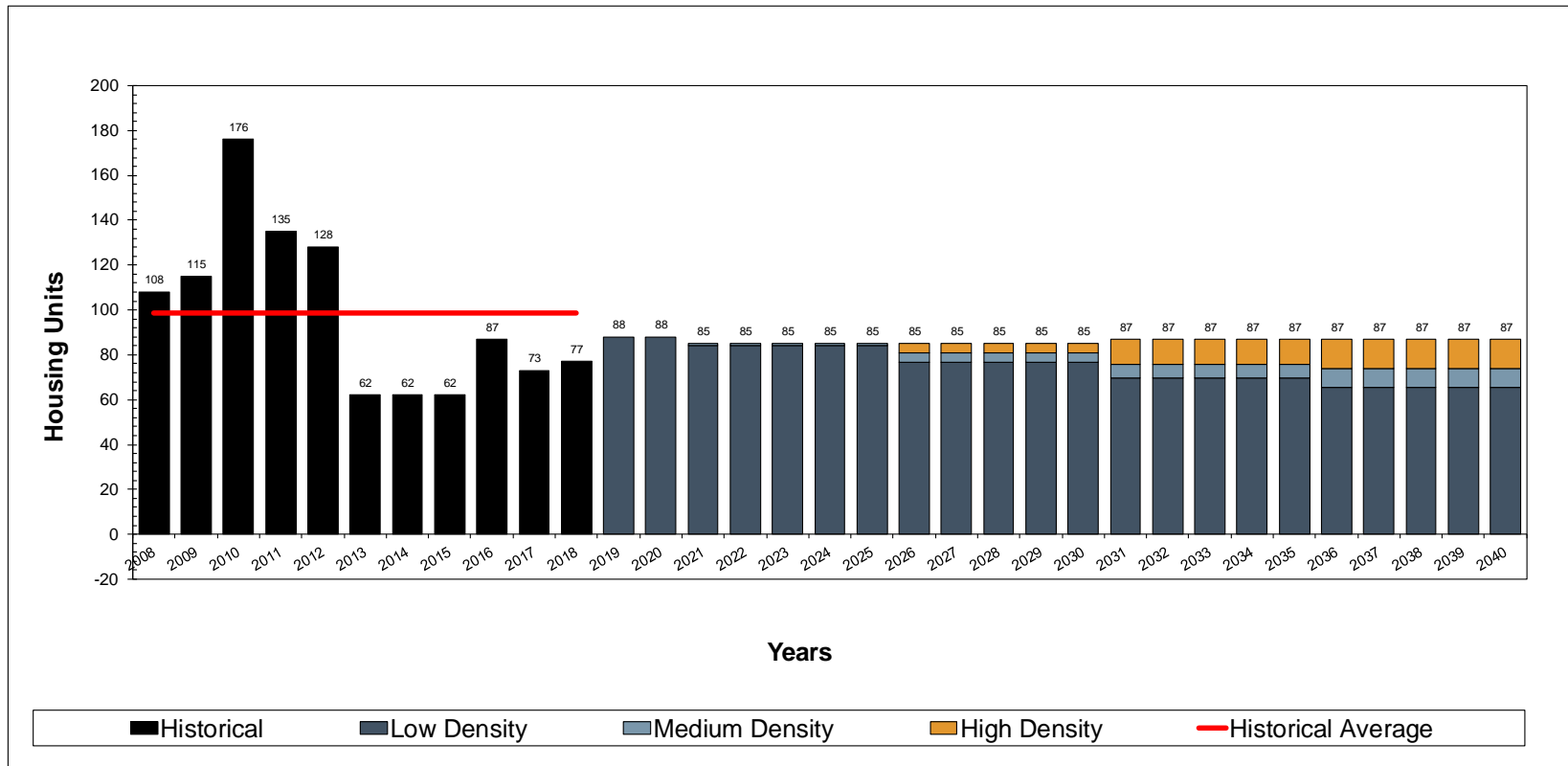
² Includes townhouses and apartments in duplexes.

³ Includes bachelor, 1-bedroom and 2-bedroom+ apartments.

Note: No future growth is assumed to occur in Garrison Petawawa. Numbers may not add up precisely due to rounding.



Figure 3-2
Town of Petawawa
Annual Housing Forecast



Source: Historical housing activity derived from Town of Petawawa, 2019.

¹ Growth forecast represents calendar year.



a highway, public works, fire, police, stormwater, water and wastewater services utilize a longer planning period.

4. Population in New Housing Units (Appendix A - Schedules 2, 3, 4, 5, 8a and 8b)

- The number of permanent housing units to be constructed in the Town of Petawawa during the short- and long-term periods is presented on Figure 3-2. Over the 10-year and longer-term forecast periods, the Town is anticipated to average of approximately 86 new housing units.
- Population in new units is derived from Schedules 3, 4, and 5, which incorporate historical development activity, anticipated units (see unit mix discussion) and average persons per unit by dwelling type for new units.
- Schedule 8a and 8b summarizes the P.P.U. for the new housing units by age and type of dwelling based on a 2016 custom Census data. The total calculated P.P.U. for all density types has been adjusted to account for the P.P.U. trends which has been recently experienced in both new and older units. Adjusted 25-year average P.P.U.s by dwelling type are as follows:
 - Low density: 2.930
 - Medium density: 2.275
 - High density: 1.352

5. Existing Units and Population Change (Appendix A - Schedules 3, 4 and 5)

- Existing households for 2019 are based on the 2016 Census households, plus estimated residential units constructed between 2017 and 2018 assuming a 6-month lag between construction and occupancy (see Schedule 3).
- The decline in average occupancy levels for existing housing units is calculated in Schedules 3 through 5, by aging the existing population over the forecast period. The forecast population decline in existing households over the 10-year and longer-term forecast period is approximately 1,220 and 1,600, respectively.

6. Employment (Appendix A, Schedules 10a, 10b, 10c, 11 and 12)

- Employment projections are largely based on the activity rate method, which is defined as the number of jobs in a municipality divided by the



5. D.C. Eligible Cost Analysis by Service

5.1 Introduction

This chapter outlines the basis for calculating D.C. eligible costs for the D.C.s to be applied on a uniform basis. The required calculation process set out in s.5(1) paragraphs 2 to 8 in the D.C.A., 1997, and described in Chapter 4, was followed in determining D.C. eligible costs.

The nature of the capital projects and timing identified in this chapter reflects Council's current intention. However, over time, municipal projects and Council priorities change and, accordingly, Council's intentions may alter and different capital projects (and timing) may be required to meet the need for services required by new growth.

5.2 Service Levels and 10-Year Capital Costs for Municipal-wide D.C. Calculation

This section evaluates the development-related capital requirements for municipal-wide services over the 10-year planning period (mid-2019 to mid-2029). Each service component is evaluated on two format sheets: the average historical 10-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 *Transportation Services*

The Town has 64 centreline-kilometres of rural, semi-urban, and urban roadways. In addition, the Town owns and maintains 46 kilometres of sidewalks, 992 streetlights, 16,870 square feet (sq.ft.) of public works facility space, and 43 public works vehicles. The total inventory of assets over the past 10-years results in an invested historical level of service of \$3,534 per capita. When applied to the Town-wide forecast population growth to 2029, a maximum D.C. eligible cost of approximately \$4.4 million could be expected to meet the future increase in needs for service.

Review of the Town's roads needs for the forecast period identified approximately \$4.4 million in gross capital costs. These costs include various road urbanization projects, a new sand dome, expansion of the active transportation network, new sidewalks and paved shoulders, and new vehicles and equipment. Recognizing the benefit to existing



development, \$2.3 million has been deducted from the gross capital costs. Additionally, approximately \$303,000 has been deducted to reflect money previously collected from development charges and available in the D.C. reserve fund. As a result, approximately \$1.8 million in growth-related needs have been included in the calculation of the D.C.

The allocation of net growth-related costs for Roads between residential and non-residential development is 64% residential and 36% non-residential, based on forecast incremental population and employment growth over the 10-year period.

5.2.2 Fire Protection Services

There are currently two fire stations and one training/classroom facility located in the Town, with a combined gross floor area of 15,848 sq.ft. The Town also maintains 8 fire vehicles, 37 sets of firefighter equipment, and 279 items of additional equipment. In total, the average level of service provided through the capital infrastructure over the past ten years has been \$517 per capita. In aggregate, the maximum D.C. eligible amount that could be included in the calculation of the charge for Fire Protection Services is approximately \$650,000.

Based on discussions with the Town's staff, the anticipated capital needs include the construction of a new fire hall, additional space for live fire training, and a boat for water rescue. The gross capital costs for these needs total \$530,000. Deductions of approximately \$86,000 and \$239,000 have been made to reflect the benefit to the existing community and funds available in the Fire Services D.C. reserve fund, respectively. In total, approximately \$206,000 in growth-related needs have been included in the calculation of the D.C.

The allocation of net growth-related costs for Fire Services between residential and non-residential development is 64% residential and 36% non-residential, based on forecast incremental population and employment growth.



5.2.3 Parks and Recreation Services

The Town currently maintains approximately 94 acres of developed parkland, 2.8 kilometres of trails, 22 vehicles, and 35,947 sq.ft. of indoor facility space for the provision of parks and recreation services. The Town's level of service over the historical 10-year period averaged \$1,734 per capita. In total, the maximum D.C. eligible amount for Parks and Recreation Services over the 10-year forecast period is approximately \$2.2 million based on the established level of service.

The 10-year capital needs for Parks and Recreation Services to accommodate growth have a total gross capital cost of approximately \$2.4 million. These capital needs include development of trails and parks, as well as a new pick-up truck. Deductions of \$620,000 have been made to reflect benefit to existing development, \$469,000 to reflect funds available in the D.C. reserve fund, and \$177,000 for the statutory 10% deduction.

The resulting net growth-related capital costs for inclusion in the D.C. calculation total approximately \$1.1 million.

As the predominant users of Parks and Recreation Services tend to be residents of the Town, the forecast growth-related costs have been allocated 95% to residential and 5% to non-residential.

5.2.4 Library Services

The Town's Library Services are provided through 12,000 sq.ft. of library space and 53,596 collection materials. The average level of service over the past 10 years was approximately \$416 per capita. Based on the application of this level of service to the incremental forecast population growth, the Town would be eligible to collect approximately \$523,000 from D.C.s for library services over the forecast period.

The capital needs required to accommodate growth have a total gross capital cost estimate of \$208,000. These costs include the repayment of debt incurred for the library expansion and a provision for expansion of the library's collection materials. The statutory 10% deduction required for library services totals approximately \$16,000. Lastly, approximately \$3,000 has been deducted from the calculation of the charge in recognition of the funds collected from prior development charges and available in the D.C. reserve fund.



Resultantly, approximately \$190,000 of growth-related costs have been included in the calculation of the charge for the 10-year forecast period.

As with Parks and Recreation Services, the predominant users of Library Services are residents of the Town, and therefore, the forecast growth-related costs have been allocated 95% to residential and 5% to non-residential.

5.2.5 Administration Studies

The D.C.A. permits the inclusion of studies undertaken to facilitate the completion of the Town's capital works program and to support the preparation of future D.C. background studies. The Town has made provisions for the inclusion of two D.C. background studies, a Parks and Recreation Master Plan, an Official Plan and a Zoning By-law update, two infrastructure studies, and two Fire Master Plans.

The costs of these projects total approximately \$449,000 over the 10-year forecast period. A Deduction of \$159,000 for benefit to existing development has been applied. Further deductions of approximately \$13,000 and \$77,000 have been included to reflect the 10% statutory deduction requirement and the funds collected from prior development charges and available in the D.C. reserve fund, respectively.

The resultant net growth-related capital costs included in the calculation of the charge total approximately \$200,000. These costs have been allocated 64% residential and 36% non-residential based on the incremental growth in population to employment for the 10-year forecast period.



Infrastructure Costs Covered in the D.C. Calculation – Transportation Services

Prj .No	Increased Service Needs Attributable to Anticipated Development 2019-2029	Timing (year)	Gross Capital Cost Estimate (2019\$)	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 64%	Non-Residential Share 36%
1	Portage Road Urbanization - Petawawa Blvd to Dustin Rd	2019-2021	1,575,670	-		1,575,670	787,835		787,835	504,215	283,621
2	Civic Centre Road Urbanization - Petawawa Blvd to Laurentian Drive (Unfunded)		249,292	-		249,292	-		249,292	159,547	89,745
3	Industrial Avenue Urbanization		611,800	-		611,800	367,080		244,720	156,621	88,099
4	Sand Dome	2019	750,000	-		750,000	426,136		323,864	207,273	116,591
5	Twinning of Algonquin Trail - Murphy Road to Portage Road	2019-2020	200,000	-		200,000	180,156		19,844	12,700	7,144
6	Addition of Sidewalks and Paved Shoulders	on-going	500,000	-		500,000	450,391		49,609	31,750	17,859
7	Trackless Unit (Sidewalk Plow)	2019	170,000	-		170,000	17,000		153,000	97,920	55,080
8	Tandem Plow (Double-Axle)	2020	300,000	-		300,000	30,000		270,000	172,800	97,200
			-	-		-	-		-	-	-
	Reserve Fund Adjustment		-	-		-	-		(302,943)	(193,884)	(109,060)
	Total		4,356,762	-	-	4,356,762	2,258,599	-	1,795,221	1,148,941	646,279



Infrastructure Costs Covered in the D.C. Calculation – Fire Protection Services

Prj .No	Increased Service Needs Attributable to Anticipated Development	Timing (year)	Gross Capital Cost Estimate (2019\$)	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 64%	Non-Residential Share 36%
	2019-2029										
1	Fire Hall Building - 2,500 Sq.Ft.		430,000	-		430,000	-		430,000	275,200	154,800
2	Sea Container (Live Fire Training)	2019	5,000	-		5,000	-		5,000	3,200	1,800
3	Boat for Water Rescue	2020	95,000	-		95,000	85,574		9,426	6,032	3,393
			-	-		-	-		-	-	-
	Reserve Fund Adjustment		-	-		-	-		(238,529)	(152,659)	(85,871)
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			-	-							



Infrastructure Costs Covered in the D.C. Calculation – Parks and Recreation Services

Prj.No	Increased Service Needs Attributable to Anticipated Development	Timing (year)	Gross Capital Cost Estimate (2019\$)	Post Period Benefit	Other Deductions	Net Capital Cost	Less:		Subtotal	Less:	Potential D.C. Recoverable Cost		
							Benefit to Existing Development	Grants, Subsidies and Other Contributions Attributable to New Development		Other (e.g. 10% Statutory Deduction)	Total	Residential Share	Non-Residential Share
	2019-2029										95%	5%	
1	Mountain Bike Trail Development	2019-2024	150,000	-		150,000	75,000		75,000	7,500	67,500	64,125	3,375
2	Hydro Corridor Trail Development (Jackpine Trail 1.1km)	2019-2028	45,000	-		45,000	13,500		31,500	3,150	28,350	26,933	1,418
3	Hydro Corridor Trail Development (Laurentian Trail 1.1km)	2019-2028	50,000	-		50,000	15,000		35,000	3,500	31,500	29,925	1,575
4	Hydro Corridor Trail Development (Limestone Trail 0.6km)	2019-2028	21,000	-		21,000	6,300		14,700	1,470	13,230	12,569	662
5	Woodland Trail Development	2020-2023	48,500	-		48,500	14,550		33,950	3,395	30,555	29,027	1,528
6	Laurentian Highlands Park Development	2022	345,000	-		345,000	-		345,000	34,500	310,500	294,975	15,525
7	Portage Landing Park Development	2023	105,000	-		105,000	-		105,000	10,500	94,500	89,775	4,725
8	Pick-up Truck	2021	45,000	-		45,000	-		45,000	4,500	40,500	38,475	2,025
9	Radtke Estates Community Park Development (including EA)		1,500,000	-		1,500,000	450,000		1,050,000	105,000	945,000	897,750	47,250
10	Radtke Estates Neighbourhood Park Development		30,000	-		30,000	-		30,000	3,000	27,000	25,650	1,350
11	Twinning of the Algonquin Trail (Town Centre to Portage Road)	2019-2020	50,000	-		50,000	45,039		4,961	496	4,465	4,242	223
	Reserve Fund Adjustment		-	-		-	-		(468,676)	-	(468,676)	(445,242)	(23,434)
	Total		2,389,500	-	-	2,389,500	619,389	-	1,301,435	177,011	1,124,424	1,068,202	56,221



Infrastructure Costs Covered in the D.C. Calculation – Library Services

Prj.No	Increased Service Needs Attributable to Anticipated Development	Timing (year)	Gross Capital Cost Estimate (2019\$)	Post Period Benefit	Other Deductions	Net Capital Cost	Less:		Subtotal	Less:	Potential D.C. Recoverable Cost		
							Benefit to Existing Development	Grants, Subsidies and Other Contributions Attributable to New Development		Other (e.g. 10% Statutory Deduction)	Total	Residential Share	Non-Residential Share
	2019-2029										95%	5%	
1	Library Expansion - Debenture (principal)	2019-2020	49,156	-		49,156	-		49,156		49,156	46,699	2,458
2	Provision for Collection Items	2019-2028	159,186	-		159,186	-		159,186	15,919	143,268	136,104	7,163
			-	-		-	-		-	-	-	-	-
	Reserve Fund Adjustment		-	-		-	-	(2,900)	-	(2,900)	(2,755)	(145)	
			-	-		-	-		-	-	-	-	
			-	-		-	-		-	-	-	-	
			-	-		-	-		-	-	-	-	
			-	-		-	-		-	-	-	-	
			-	-		-	-		-	-	-	-	
			-	-		-	-		-	-	-	-	
			-	-		-	-		-	-	-	-	
			-	-		-	-		-	-	-	-	
	Total		208,343	-	-	208,343	-	-	205,443	15,919	189,525	180,048	9,476



Infrastructure Costs Covered in the D.C. Calculation – Administration Studies

Prj.No	Increased Service Needs Attributable to Anticipated Development	Timing (year)	Gross Capital Cost Estimate (2019\$)	Post Period Benefit	Other Deductions	Net Capital Cost	Less:		Subtotal	Less:	Potential D.C. Recoverable Cost		
							Benefit to Existing Development	Grants, Subsidies and Other Contributions Attributable to New Development		Other (e.g. 10% Statutory Deduction)	Total	Residential Share	Non- Residential Share
	2019-2029												
1	Development Charges Study	2019	32,200	-		32,200	-		32,200	3,220	28,980	18,547	10,433
2	Development Charges Study	2024	32,200	-		32,200	-		32,200	3,220	28,980	18,547	10,433
3	Parks and Recreation Master Plan	2021	75,000	-		75,000	30,000		45,000	4,500	40,500	25,920	14,580
4	Official Plan Update	2020	30,000	-		30,000	15,000		15,000	1,500	13,500	8,640	4,860
5	Zoning By-law Update	2021	20,000	-		20,000	10,000		10,000	1,000	9,000	5,760	3,240
6	Infrastructure Study	2019	60,000	-		60,000	24,000		36,000	-	36,000	23,040	12,960
7	Infrastructure Study	2024	60,000	-		60,000	24,000		36,000	-	36,000	23,040	12,960
7	Fire Master Plan	2019	70,000	-		70,000	28,000		42,000	-	42,000	26,880	15,120
9	Fire Master Plan	2024	70,000	-		70,000	28,000		42,000	-	42,000	26,880	15,120
			-	-		-	-		-	-	-	-	-
	Reserve Fund Adjustment		-	-		-	-		(77,068)	-	(77,068)	(49,324)	(27,745)
			-	-		-	-		-	-	-	-	-
			-	-		-	-		-	-	-	-	-
			-	-		-	-		-	-	-	-	-
			-	-		-	-		-	-	-	-	-
			-	-		-	-		-	-	-	-	-
			-	-		-	-		-	-	-	-	-
			-	-		-	-		-	-	-	-	-
	Total		449,400	-	-	449,400	159,000	-	213,332	13,440	199,892	127,931	71,961



5.3 Service Levels and 17-Year Capital Costs for Area-Specific D.C. Calculation

This D.C. Background Study provides for the uniform application of wastewater and water charges within the municipally serviced urban area. The anticipated development-related capital requirements for these services have been considered over the 17-year (mid-2019 to mid-2036) forecast period.

5.3.1 Wastewater Services

The capital plan for wastewater services includes a pumping station expansion, expansion of the wastewater treatment plant, and a wastewater main upgrade along Petawawa Blvd.

In total, the gross capital cost estimates amount to \$10.3 million. A deduction of \$6.6 million for benefit to existing development has been observed. Additionally, approximately \$294,000 has been deducted to reflect the positive balance of the D.C. reserve fund. The net capital costs identified for inclusion in the calculation total approximately \$3.4 million.

These costs have been allocated 73% residential and 27% non-residential, based on the incremental growth in population to employment in the wastewater serviced area for the 17-year forecast period.

5.3.2 Water Services

The capital plan for water services includes water main upgrades. In total, the gross capital cost estimates amount to \$1.2 million. A deduction of \$336,000 for benefit to existing development has been observed. Additionally, approximately \$7,000 has been deducted to reflect the positive balance of the D.C. reserve fund. The net capital costs identified for inclusion in the calculation total approximately \$845,000.

These costs have been allocated 72% residential and 28% non-residential, based on the incremental growth in population to employment in the water serviced area for the 17-year forecast period.



Infrastructure Costs Covered in the D.C. Calculation – Wastewater Services

Prj.No	Increased Service Needs Attributable to Anticipated Development	Timing (year)	Gross Capital Cost Estimate (2019\$)	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
	2019-2036									73%	27%
1	Renfrew St. Pumping Station Expansion - Controls and Building	2019-2021	550,000	-		550,000	-		550,000	401,500	148,500
2	Renfrew St. Pumping Station Expansion - Pumps and Additional Wet Well		300,000	-		300,000	-		300,000	219,000	81,000
3	Wastewater Treatment Plant Expansion - EA		646,700	-		646,700	-		646,700	472,091	174,609
4	Wastewater Treatment Plant Expansion		8,823,600	-		8,823,600	6,617,700		2,205,900	1,610,307	595,593
				-		-	-		-	-	-
				-		-	-		-	-	-
				-		-	-		-	-	-
				-		-	-		-	-	-
				-		-	-		-	-	-
				-		-	-		-	-	-
				-		-	-		-	-	-
	Reserve Fund Adjustment		-	-		-	-		(294,010)	(214,627)	(79,383)
	Total		10,320,300	-	-	10,320,300	6,617,700	-	3,408,590	2,488,271	920,319



Infrastructure Costs Covered in the D.C. Calculation – Water Services

Prj.No	Increased Service Needs Attributable to Anticipated Development 2019-2036	Timing (year)	Gross Capital Cost Estimate (2019\$)	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 72%	Non-Residential Share 28%
1	Portage Road Watermain Expansion from 150mm to 300mm Trunk main	2019-2021	950,000	-		950,000	285,000		665,000	478,800	186,200
2	Herman St. (John St to Mary St) Watermain Expansion from 150mm to 300mm	2019	170,000	-		170,000	51,000		119,000	85,680	33,320
3	Watermain Looping - Portage Landing Subdivision (Unfunded)	2016	67,777	-		67,777	-		67,777	48,800	18,978
			-	-		-	-		-	-	-
	Reserve Fund Adjustment		-	-		-	-		(7,085)	(5,102)	(1,984)
			-	-		-	-		-	-	-
			-	-		-	-		-	-	-
			-	-		-	-		-	-	-
			-	-		-	-		-	-	-
			-	-		-	-		-	-	-
			-	-		-	-		-	-	-
			-	-		-	-		-	-	-
	Total		1,187,777	-	-	1,187,777	336,000	-	844,692	608,178	236,514



6. D.C. Calculation

Table 6-1 to Table 6-3 calculate the proposed D.C. for the growth-related capital costs identified in Chapter 5. Table 6-1 and Table 6-2 presents the Area-Specific D.C. calculations for Water and Wastewater-related services over the 17-year planning horizon, respectively. It should be noted, that the forecast G.F.A. in the urban serviced area is lower for wastewater services than water services reflecting the private septic servicing of the Industrial Park (i.e. 694,000 sq.ft. of G.F.A. for wastewater services, as compared to 764,500 sq.ft. for water services). Table 6-3 presents the Municipal-wide D.C. calculation for all remaining services over the 10-year planning horizon.

The calculation for residential development is generated on a per capita basis and is based upon four forms of housing types (single and semi-detached, apartments 2+ bedrooms, bachelor and 1-bedroom apartments, and other multiples/mobile homes). The non-residential development charge has been calculated on a per square foot of gross floor area basis for non-residential development (i.e. industrial, commercial, and institutional).

The D.C.-eligible costs for each service component are provided in Chapter 5 for all municipal services, based on their proposed capital programs.

Table 6-4 summarizes the calculated schedule of charges, reflecting the maximum D.C.s by residential dwelling type and per sq.ft. of G.F.A. for non-residential development.

Table 6-5 compares the Town's existing charges to the charges proposed herein (as presented in Table 6-4), for a single detached residential dwelling unit and per sq.ft. of G.F.A. for non-residential development. The calculated charges are \$5,525 for a single detached residential dwelling unit and \$3.19 per sq.ft. of non-residential G.F.A., for development with the urban area. The calculated residential charge for a single detached dwelling unit within the urban area represents a 6.8% (\$350) increase relative to the current charge of \$5,175 per unit. The calculated non-residential charge in the urban service area is 1.9% (\$0.06/sq.ft.) lower than the current charge of \$3.25 per sq.ft.



Table 6-1
Water Serviced Area D.C. Calculation
2019-2036

SERVICE	2019\$ D.C.-Eligible Cost		2019\$ D.C.-Eligible Cost	
	Residential	Non-Residential	S.D.U.	per sq.ft.
1. <u>Water Services</u>	\$ 608,178	\$ 236,514	\$ 468	\$ 0.31
TOTAL	\$ 608,178	\$ 236,514	\$ 468	\$ 0.31
17-Year Gross Population/GFA Growth (sq.ft.)	3,810	764,500		
Cost Per Capita/Non-Residential GFA (sq.ft.)	\$ 159.63	\$ 0.31		
<u>By Residential Unit Type</u>	<u>P.P.U.</u>			
Single and Semi-Detached Dwelling	2.930	\$ 468		
Apartments - 2 Bedrooms +	1.578	\$ 252		
Apartments - Bachelor and 1 Bedroom	1.100	\$ 176		
Other Multiples and Mobile Homes	2.275	\$ 363		



Table 6-2
Wastewater Serviced Area D.C. Calculation
2019-2036

SERVICE	2019\$ D.C.-Eligible Cost		2019\$ D.C.-Eligible Cost	
	Residential	Non-Residential	S.D.U.	per sq.ft.
2. <u>Wastewater Services</u>	\$ 2,488,271	\$ 920,319	\$ 1,914	\$ 1.33
TOTAL	\$ 2,488,271	\$ 920,319	\$ 1,914	\$ 1.33
17-Year Gross Population/GFA Growth (sq.ft.)	3,810	694,000		
Cost Per Capita/Non-Residential GFA (sq.ft.)	\$ 653.09	\$ 1.33		
<u>By Residential Unit Type</u>	<u>P.P.U.</u>			
Single and Semi-Detached Dwelling	2.930	\$ 1,914		
Apartments - 2 Bedrooms +	1.578	\$ 1,031		
Apartments - Bachelor and 1 Bedroom	1.100	\$ 718		
Other Multiples and Mobile Homes	2.275	\$ 1,486		



Table 6-3
Municipal-wide Services D.C. Calculation
2019-2029

SERVICE	2019\$ D.C.-Eligible Cost		2019\$ D.C.-Eligible Cost	
	Residential	Non-Residential	S.D.U.	per sq.ft.
3. <u>Transportation Services</u>	\$ 1,148,941	\$ 646,279	\$ 1,359	\$ 1.17
4. <u>Fire Protection Services</u>	\$ 131,774	\$ 74,123	\$ 156	\$ 0.13
5. <u>Parks and Recreation</u>	\$ 1,068,202	\$ 56,221	\$ 1,264	\$ 0.10
6. <u>Library Services</u>	\$ 180,048	\$ 9,476	\$ 213	\$ 0.02
7. <u>Administration - Studies</u>	\$ 127,931	\$ 71,961	\$ 151	\$ 0.13
TOTAL	\$ 2,656,896	\$ 858,061	\$ 3,143	\$ 1.55
10-Year Gross Population/GFA Growth (sq.ft.)	2,477	550,900		
Cost Per Capita/Non-Residential GFA (sq.ft.)	\$ 1,072.63	\$ 1.56		
<u>By Residential Unit Type</u>	<u>P.P.U.</u>			
Single and Semi-Detached Dwelling	2.930	\$ 3,143		
Apartments - 2 Bedrooms +	1.578	\$ 1,693		
Apartments - Bachelor and 1 Bedroom	1.100	\$ 1,180		
Other Multiples and Mobile Homes	2.275	\$ 2,440		



Table 6-4
Schedule of Calculated D.C.s

Service	RESIDENTIAL				NON-RESIDENTIAL
	Single and Semi-Detached Dwelling	Apartments - 2 Bedrooms +	Apartments - Bachelor and 1 Bedroom	Other Multiples and Mobile Homes	(per sq.ft. of Gross Floor Area)
Municipal Wide Services:					
Transportation Services	\$ 1,359	\$ 732	\$ 510	\$ 1,055	\$ 1.17
Fire Protection Services	\$ 156	\$ 84	\$ 59	\$ 121	\$ 0.13
Parks and Recreation	\$ 1,264	\$ 681	\$ 475	\$ 981	\$ 0.10
Library Services	\$ 213	\$ 115	\$ 80	\$ 165	\$ 0.02
Administration - Studies	\$ 151	\$ 81	\$ 57	\$ 117	\$ 0.13
Total Municipal Wide Services	\$ 3,143	\$ 1,693	\$ 1,181	\$ 2,439	\$ 1.55
Urban Services					
Wastewater Services	\$ 1,914	\$ 1,031	\$ 719	\$ 1,486	\$ 1.33
Water Services	\$ 468	\$ 252	\$ 176	\$ 363	\$ 0.31
Total Urban Services	\$ 2,382	\$ 1,283	\$ 895	\$ 1,849	\$ 1.64
GRAND TOTAL RURAL AREA	\$ 3,143	\$ 1,693	\$ 1,181	\$ 2,439	\$ 1.55
GRAND TOTAL URBAN AREA	\$ 5,525	\$ 2,976	\$ 2,076	\$ 4,288	\$ 3.19



Table 6-5
Comparison of Current and Calculated D.C.s

Service	Residential (Single Detached)		Non-Residential (per sq.ft. of Gross Floor Area)	
	Current	Calculated	Current	Calculated
Municipal Wide Services:				
Transportation Services	\$ 1,473	\$ 1,359	\$ 1.40	\$ 1.17
Fire Protection Services	\$ 289	\$ 156	\$ 0.13	\$ 0.13
Parks and Recreation	\$ 708	\$ 1,264	\$ 0.06	\$ 0.10
Library Services	\$ 330	\$ 213	\$ 0.03	\$ 0.02
Administration - Studies	\$ 159	\$ 151	\$ 0.15	\$ 0.13
Total Municipal Wide Services	\$ 2,959	\$ 3,143	\$ 1.77	\$ 1.55
Urban Services:				
Wastewater Services	\$ 1,847	\$ 1,914	\$ 1.25	\$ 1.33
Water Services	\$ 369	\$ 468	\$ 0.23	\$ 0.31
Total Area Specific Services	\$ 2,216	\$ 2,382	\$ 1.48	\$ 1.64
Grand Total - Rural Area	\$ 2,959	\$ 3,143	\$ 1.77	\$ 1.55
Grand Total - Urban Area	\$ 5,175	\$ 5,525	\$ 3.25	\$ 3.19



replacement of their assets. In 2013, the Town completed an A.M.P. for roads, sidewalks, stormwater, water, and wastewater assets. The 2013 A.M.P. is now outdated and the Town will be undertaking an update in the near future. As a result, the asset management requirement for this D.C. has been undertaken independently of the 2013 A.M.P.

In recognition to the schematic in Section 8.1, the following table (presented in 2019\$) 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. Furthermore, 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 which 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, totalling approximately \$730,000.
2. Lifecycle costs for the 2019 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. Total incremental costs attributable to the growth-related expenditures (i.e. annual lifecycle costs and incremental operating costs) total approximately \$464,000.
5. The resultant total annualized expenditures are approximately \$1.2 million.
6. 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 identified above. The additional operating revenues generated as a result of the anticipated population and employment growth are estimated at \$1.7 million. This amount, totalled with the existing operating revenues of \$22.4 million, provides annual revenues of approximately \$24 million by the end of the forecast period.



7. The incremental operating revenues of \$1.7 million will adequately cover the incremental growth-related expenditures of approximately \$464,000 and \$730,000 of non-D.C. recoverable expenditures.
8. In consideration of the above, the capital plan is deemed to be financially sustainable.

Table 8-1
Town of Petawawa
Asset Management – Future Expenditures and Associated Revenues (2019\$)

	2036 (Total)
Expenditures (Annualized)	
Annual Debt Payment on Non-Growth Related Capital ¹	729,729
Annual Debt Payment on Post Period Capital ²	-
Annual Lifecycle - Town Wide Services	198,201
Annual Lifecycle - Area Specific Services	113,945
Incremental Operating Costs (for D.C. Services)	\$151,752
Total Expenditures	\$1,193,627
Revenue (Annualized)	
Total Existing Revenue ³	\$22,356,480
Incremental Tax and Non-Tax Revenue (User Fees, Fines, Licences, etc.)	\$1,669,091
Total Revenues	\$24,025,571

¹ Non-Growth Related component of Projects including 10% mandatory deduction on soft services

² Interim Debt Financing for Post Period Benefit

³ As per Sch. 10 of FIR



Schedule 1 Town of Petawawa Residential Growth Forecast Summary

	Year	Population (Including Census Undercount) ¹	Excluding Census Undercount				Housing Units				Person Per Unit (P.P.U.): Total Population/ Total Households
			Population	Garrison Petawawa Population	Population Excluding Garrison Petawawa	Singles & Semi-Detached	Multiple Dwellings ²	Apartments ³	Other	Total Households	
Historical	Mid 2006	15,050	14,651	6,000	8,651	4,060	730	495	35	5,320	2.754
	Mid 2011	16,420	15,988	6,000	9,988	4,591	847	584	15	6,037	2.648
	Mid 2016	17,650	17,187	6,000	11,187	4,845	915	555	20	6,335	2.713
Forecast	Mid 2019	17,950	17,475	6,000	11,475	5,007	937	608	20	6,572	2.659
	Mid 2029	19,240	18,732	6,000	12,732	5,833	954	621	20	7,428	2.522
	Mid 2036	20,540	19,999	6,000	13,999	6,334	993	686	20	8,033	2.490
Incremental	Mid 2006 - Mid 2011	1,370	1,337	0	1,337	531	117	89	-20	717	
	Mid 2011 - Mid 2016	1,230	1,199	0	1,199	254	68	-29	5	298	
	Mid 2016 - Mid 2019	300	288	0	288	162	22	53	0	237	
	Mid 2019 - Mid 2029	1,290	1,257	0	1,257	826	17	13	0	856	
	Mid 2019 - Mid 2036	2,590	2,524	0	2,524	1,327	56	78	0	1,461	

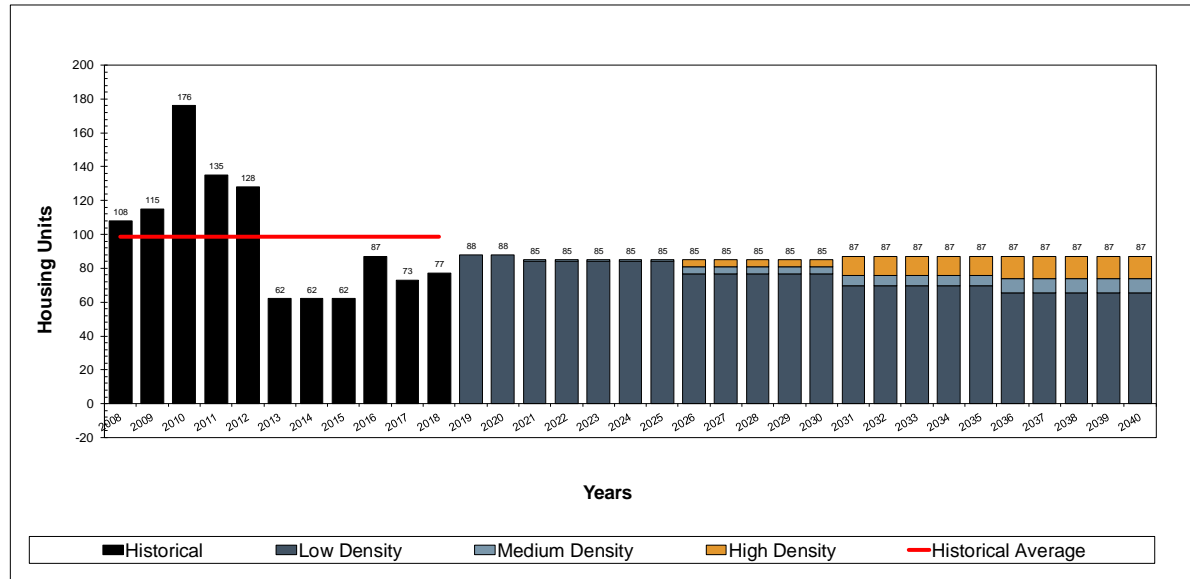
Source: Population forecast derived from County of Renfrew Official Plan (O.P.A. No. 25) for the Town of Petawawa.

¹ Census undercount estimated at approximately 2.7%. Note: Population including the undercount has been rounded.

² Includes townhouses and apartments in duplexes.

³ Includes bachelor, 1-bedroom and 2-bedroom+ apartments.

Note: No future growth is assumed to occur in Garrison Petawawa. Numbers may not add up precisely due to rounding.



Source: Historical housing activity derived from Town of Petawawa, 2019.

¹ Growth forecast represents calendar year.



Schedule 2
Town of Petawawa

Estimate of the Anticipated Amount, Type and Location of Residential Development for which Development Charges Can Be Imposed

Development Location	Timing	Single & Semi-Detached	Multiples ¹	Apartments ²	Total Residential Units	Gross Population In New Units	Existing Unit Population Change	Net Population Increase, Excluding Institutional	Institutional Population	Net Population Including Institutional
Town Proper (Fully Serviced)	2019 - 2029	760	17	13	790	2,283	(943)	1,340	0	1,340
	2019 - 2036	1,221	56	78	1,355	3,810	(1,234)	2,576	0	2,576
Town Proper (Private Services)	2019 - 2029	66	-	-	66	194	(277)	(83)	0	(83)
	2019 - 2036	106	-	-	106	311	(363)	(52)	0	(52)
Garrison Petawawa	2019 - 2029	-	-	-	-	-	-	-	-	-
	2019 - 2036	-	-	-	-	-	-	-	-	-
Town of Petawawa	2019 - 2029	826	17	13	856	2,477	(1,220)	1,257	0	1,257
	2019 - 2036	1,327	56	78	1,461	4,121	(1,597)	2,524	0	2,524

Source: Population forecast derived from County of Renfrew Official Plan (O.P.A. No. 25) for the Town of Petawawa..

¹ Includes townhouses and apartments in duplexes.

² Includes accessory apartments, bachelor, 1-bedroom and 2-bedroom+ apartments.

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



Schedule 3
Town of Petawawa
Current Year Growth Forecast
Mid 2016 to Mid 2019

		Population
Mid 2016 Population		17,187
Occupants of New Housing Units, Mid 2016 to Mid 2019	<i>Units (2)</i>	237
	<i>multiplied by P.P.U. (3)</i>	2,459
	<i>gross population increase</i>	583
Occupants of New Equivalent Institutional Units, Mid 2016 to Mid 2019	<i>Units</i>	0
	<i>multiplied by P.P.U. (3)</i>	1,100
	<i>gross population increase</i>	0
Decline in Housing Unit Occupancy, Mid 2016 to Mid 2019	<i>Units (4)</i>	6,335
	<i>multiplied by P.P.U. decline rate (5)</i>	-0.047
	<i>total decline in population</i>	-295
Population Estimate to Mid 2019		17,475
<i>Net Population Increase, Mid 2016 to Mid 2019</i>		<i>288</i>

- (1) 2016 population based on Statistics Canada Census unadjusted for Census undercount.
- (2) Estimated residential units constructed, Mid-2016 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>	2.800	68%	1.914
<i>Multiples (6)</i>	2.254	9%	0.209
<i>Apartments (7)</i>	1.500	22%	0.335
Total		100%	2.459

¹ Based on 2016 Census custom database

² Based on Building permit/completion activity

- (4) 2016 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.



Schedule 4
Town of Petawawa
10-Year Growth Forecast
Mid 2019 to Mid 2029

		Population
Mid 2019 Population		17,475
Occupants of New Housing Units, Mid 2019 to Mid 2029	<i>Units (2)</i>	856
	<i>multiplied by P.P.U. (3)</i>	2,894
	<i>gross population increase</i>	2,477
Occupants of New Equivalent Institutional Units, Mid 2019 to Mid 2029	<i>Units</i>	0
	<i>multiplied by P.P.U. (3)</i>	1,100
	<i>gross population increase</i>	0
Decline in Housing Unit Occupancy, Mid 2019 to Mid 2029	<i>Units (4)</i>	6,572
	<i>multiplied by P.P.U. decline rate (5)</i>	-0.186
	<i>total decline in population</i>	-1,220
Population Estimate to Mid 2029		18,732
<i>Net Population Increase, Mid 2019 to Mid 2029</i>		1,257

(1) Mid 2019 Population based on:

2016 Population (17,187) + Mid 2016 to Mid 2019 estimated housing units to beginning of forecast period (237 x 2.459 = 583) + (x 1.1 =) + (6,335 x -0.047 = -295) = 17,475

(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>	2.930	97%	2.828
<i>Multiples (6)</i>	2.275	2%	0.045
<i>Apartments (7)</i>	1.352	1%	0.020
<i>one bedroom or less</i>	1.100		
<i>two bedrooms or more</i>	1.578		
Total		100%	2.894

¹ Persons per unit based on adjusted Statistics Canada Custom 2016 Census database.

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

(4) Mid 2019 households based upon 2016 Census (6,335 units) + Mid 2016 to Mid 2019 unit estimate (237 units) = 6,572 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.



Schedule 5
Town of Petawawa
Long Term Growth Forecast
Mid 2019 to Mid 2036

		Population
Mid 2019 Population		17,475
Occupants of New Housing Units, Mid 2019 to Mid 2036	<i>Units (2)</i>	1,461
	<i>multiplied by P.P.U. (3)</i>	2,821
	<i>gross population increase</i>	4,121
Occupants of New Equivalent Institutional Units, Mid 2019 to Mid 2036	<i>Units</i>	0
	<i>multiplied by P.P.U. (3)</i>	1,100
	<i>gross population increase</i>	0
Decline in Housing Unit Occupancy, Mid 2019 to Mid 2036	<i>Units (4)</i>	6,572
	<i>multiplied by P.P.U. decline rate (5)</i>	-0.243
	<i>total decline in population</i>	-1,597
Population Estimate to Mid 2036		19,999
<i>Net Population Increase, Mid 2019 to Mid 2036</i>		<i>2,524</i>

(1) Mid 2019 Population based on:

2016 Population (17,187) + Mid 2016 to Mid 2019 estimated housing units to beginning of forecast period (237 x 2.459 = 583) + (x 1.1 =) + (6,335 x -0.047 = -295) = 17,475

(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>	2.930	91%	2.662
<i>Multiples (6)</i>	2.275	4%	0.087
<i>Apartments (7)</i>	1.352	5%	0.072
<i>one bedroom or less</i>	1.100		
<i>two bedrooms or more</i>	1.578		
Total		100%	2.821

¹ Persons per unit based on Statistics Canada Custom 2016 Census database.

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

(4) Mid 2019 households based upon 2016 Census (6,335 units) + Mid 2016 to Mid 2019 unit estimate (237 units) = 6,572 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.



Service: Roads
 Unit Measure: km of roadways

Description	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019 Value (\$/km)
Rural	44.4	44.5	44.6	45.0	45.4	45.4	45.4	45.4	45.4	45.4	\$340,000
Semi-Urban	8.4	8.4	8.4	8.4	8.4	8.4	9.7	9.7	9.7	9.7	\$600,000
Urban	7.8	3.8	3.8	3.8	3.8	4.1	4.9	5.5	6.4	8.9	\$1,336,000
Total	60.5	56.6	56.7	57.1	57.5	57.9	59.9	60.6	61.5	64.0	

Population	9,246	9,529	9,988	10,342	10,666	10,838	11,015	11,188	11,305	11,412
Per Capita Standard	0.0065	0.0059	0.0057	0.0055	0.0054	0.0053	0.0054	0.0054	0.0054	0.0056

10 Year Average	2009-2018
Quantity Standard	0.0056
Quality Standard	\$469,571
Service Standard	\$2,630

D.C. Amount (before deductions)	10 Year
Forecast Population	1,257
\$ per Capita	\$2,630
Eligible Amount	\$3,305,407



Service: Sidewalks
 Unit Measure: km of Sidewalk

Description	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2014 Value (\$/km)
Sidewalks	15.99	16.01	-	-	-	-	-	-	-	-	\$137,600
Sidewalks - Concrete	-	-	20.43	20.83	21.18	22.34	24.90	25.30	26.20	28.20	\$127,500
Sidewalks - Asphalt	-	-	13.95	14.35	14.70	14.70	15.00	16.30	17.00	17.80	\$82,500
Total	15.99	16.01	34.38	35.18	35.88	37.04	39.90	41.60	43.20	46.00	

Population	9,246	9,529	9,988	10,342	10,666	10,838	11,015	11,188	11,305	11,412
Per Capita Standard (per 1,000 population)	1.7294	1.6801	3.4421	3.4017	3.3640	3.4176	3.6223	3.7183	3.8213	4.0308

10 Year Average	2009-2018
Quantity Standard (per 1,000 population)	3.2228
Quality Standard	\$112,697
Service Standard	\$363

D.C. Amount (before deductions)	10 Year
Forecast Population	1,257
\$ per Capita	\$363
Eligible Amount	\$456,542



Service: Traffic Signals & Streetlights
 Unit Measure: No. of Traffic Signals and Streetlights

Description	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019 Value (\$/item)
Streetlights	323	347	371	395	415	500	640	795	801	992	\$1,100
Total	323	347	371	395	415	500	640	795	801	992	

Population	9,246	9,529	9,988	10,342	10,666	10,838	11,015	11,188	11,305	11,412
Per Capita Standard	0.0350	0.0364	0.0371	0.0382	0.0390	0.0461	0.0581	0.0711	0.0709	0.0869

10 Year Average	2009-2018
Quantity Standard	0.0519
Quality Standard	\$1,100
Service Standard	\$57

D.C. Amount (before deductions)	10 Year
Forecast Population	1,257
\$ per Capita	\$57
Eligible Amount	\$71,775



Service: Public Works Facilities
 Unit Measure: ft² of building area

Description	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019 Bld'g Value (\$/sq.ft.)	Value/sq.ft. with land, site works, etc.
Salt Dome	1,170	1,170	1,170	1,170	1,170	1,170	1,170	1,170	1,170	1,170	\$146	\$ 161
Sand Dome	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	\$66	\$ 73
Public Works Facility	8,600	8,600	8,600	10,700	10,700	10,700	10,700	10,700	10,700	10,700	\$102	\$ 119
Total	14,770	14,770	14,770	16,870	16,870	16,870	16,870	16,870	16,870	16,870		

Population	9,246	9,529	9,988	10,342	10,666	10,838	11,015	11,188	11,305	11,412
Per Capita Standard	1.5974	1.5500	1.4788	1.6312	1.5817	1.5566	1.5315	1.5079	1.4923	1.4783

10 Year Average	2009-2018
Quantity Standard	1.5406
Quality Standard	\$108
Service Standard	\$166

D.C. Amount (before deductions)	10 Year
Forecast Population	1,257
\$ per Capita	\$166
Eligible Amount	\$208,800



Service: Roads and Related Vehicles
 Unit Measure: No. of vehicles and equipment

Description	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019 Value (\$/Vehicle)
1/2 ton Truck	2	2	2	2	2	2	2	2	2	3	\$40,000
1 ton Dump Truck	1	1	1	1	1	1	1	1	1	1	\$100,000
Cargo Van	1	1	1	1	1	1	1	1	1	1	\$50,000
Dump Truck	1	1	1	1	1	-	-	-	-	-	\$100,000
Plough - Single Axle	3	3	2	2	2	1	1	1	-	-	\$150,000
Plough - Double Axle	2	2	3	3	3	4	4	4	5	5	\$270,000
Sidewalk Plough (w/ Attachments)	3	4	4	5	5	5	4	4	4	4	\$150,000
Mobile Radio Equipment	18	18	18	18	18	18	18	18	18	18	\$1,100
Portable Radio Equipment	5	3	3	3	3	3	3	3	3	3	\$800
Grader	1	1	1	1	1	1	1	1	1	1	\$297,000
Backhoe	2	2	2	2	2	2	2	2	2	2	\$140,000
Loader	2	2	2	2	2	1	1	1	1	1	\$250,000
Snowblower for Loader	1	1	1	1	1	1	1	1	1	1	\$180,000
Chipper	1	1	1	1	1	1	1	1	1	1	\$45,900
Trailer	1	1	1	1	1	1	1	1	1	1	\$11,500
3 ton, 4 door, c/w blade	-	-	-	-	-	-	-	1	1	1	\$150,000
Total	44	43	43	44	44	42	41	42	42	43	

Population	9,246	9,529	9,988	10,342	10,666	10,838	11,015	11,188	11,305	11,412
Per Capita Standard (per 1,000 population)	4.7588	4.5125	4.3052	4.2545	4.1253	3.8753	3.7222	3.7540	3.7152	3.7680

10 Year Average	2009-2018
Quantity Standard (per 1,000 population)	4.0791
Quality Standard	\$77,890
Service Standard	\$318

D.C. Amount (before deductions)	10 Year
Forecast Population	1,257
\$ per Capita	\$318
Eligible Amount	\$399,374



Service: Fire Facilities
 Unit Measure: ft² of building area

Description	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019 Bld'g Value (\$/sq.ft.)	Value/sq.ft. with land, site works, etc.
Fire Hall 1 - 23 Schwanz Rd.	8,848	8,848	8,848	8,848	8,848	8,848	8,848	8,848	8,848	8,848	\$172	\$ 200
Fire Hall 2 - 1111 Victoria St.	2,600	2,600	2,600	2,600	2,600	2,600	2,600	2,600	2,600	2,600	\$161	\$ 188
Training Facility - 19 Industrial Rd.	1,920	1,920	1,920	1,920	1,920	1,920	3,200	3,200	3,200	3,200	\$8	\$ 12
Portable Classroom - 19 Industrial Rd.	1,200	1,200	1,200	1,200	1,200	1,200	1,200	1,200	1,200	1,200	\$33	\$ 46
Total	14,568	14,568	14,568	14,568	14,568	14,568	15,848	15,848	15,848	15,848		

Population	9,246	9,529	9,988	10,342	10,666	10,838	11,015	11,188	11,305	11,412
Per Capita Standard	1.5756	1.5288	1.4585	1.4086	1.3658	1.3442	1.4388	1.4165	1.4019	1.3887

10 Year Average	2009-2018
Quantity Standard	1.4327
Quality Standard	\$156
Service Standard	\$223

D.C. Amount (before deductions)	10 Year
Forecast Population	1,257
\$ per Capita	\$223
Eligible Amount	\$280,361



Service: Fire Vehicles
 Unit Measure: No. of vehicles

Description	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019 Value (\$/Vehicle)
Pumper	3	3	3	3	3	3	4	4	4	4	\$548,500
Tanker	1	1	1	1	1	1	1	1	1	1	\$400,000
Van	1	1	1	1	1	1	-	-	-	-	\$45,900
Bush Truck	1	1	1	1	1	1	1	1	1	1	\$140,000
Command	1	1	1	1	1	1	1	1	1	1	\$60,000
Water Rescue	1	1	1	1	1	1	1	1	1	1	\$80,000
Total	8	8	8	8	8	8	8	8	8	8	

Population	9,246	9,529	9,988	10,342	10,666	10,838	11,015	11,188	11,305	11,412
Per Capita Standard (per 1,000 population)	0.8652	0.8395	0.8010	0.7735	0.7500	0.7381	0.7263	0.7151	0.7077	0.7010

10 Year Average	2009-2018
Quantity Standard (per 1,000 population)	0.7617
Quality Standard	\$319,955
Service Standard	\$244

D.C. Amount (before deductions)	10 Year
Forecast Population	1,257
\$ per Capita	\$244
Eligible Amount	\$306,343



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

Description	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019 Value (\$/item)
Portable Radios	13	23	33	33	33	33	33	33	33	33	\$1,700
Pagers & Chargers	44	44	44	43	43	43	43	43	43	43	\$500
Mobile Radios	18	18	16	10	10	10	10	10	10	10	\$1,000
Hose - 38 mm (50' unit)	69	69	69	69	69	69	69	69	69	69	\$200
Hose - 65 mm (50' unit)	69	69	69	69	69	69	69	69	69	69	\$300
Hose - 100 mm (100' unit)	30	30	30	30	30	30	30	30	30	30	\$700
Portable Pumps	5	5	5	5	5	5	5	5	5	5	\$5,700
Breathing Apparatus	18	18	18	18	18	18	18	18	18	18	\$6,300
Firefighter Training Equipment*	1	1	1	1	1	1	1	1	1	1	\$17,200
Fire Prevention Training Equipment**	-	-	-	1	1	1	1	1	1	1	\$17,200
Equipped Firefighters	37	37	37	37	37	37	37	37	37	37	\$6,000
Total	304	314	322	316	316	316	316	316	316	316	

Population	9,246	9,529	9,988	10,342	10,666	10,838	11,015	11,188	11,305	11,412
Per Capita Standard	0.0329	0.0330	0.0322	0.0306	0.0296	0.0292	0.0287	0.0282	0.0280	0.0277

10 Year Average	2009-2018
Quantity Standard	0.0300
Quality Standard	\$1,690
Service Standard	\$51

D.C. Amount (before deductions)	10 Year
Forecast Population	1,257
\$ per Capita	\$51
Eligible Amount	\$63,742

Note:

* Firefighter Training Equipment is made up of 11 pieces of equipment totaling 1 unit

** Fire Prevention Training Equipment is made up of digital screen, laser extinguisher, Bullex safety control panel, portable charger totaling 1 unit



Service: Parkland Development
 Unit Measure: Acres of Parkland

Description	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019 Value (\$/Acre)
Civic Centre Park	40.0	40.0	40.0	40.0	42.0	42.0	42.0	42.0	42.0	42.0	\$60,000
Centennial Park	19.9	19.9	19.9	19.9	19.9	19.9	19.9	19.9	19.9	19.9	\$60,000
Petawawa Point Park	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	\$60,000
Nature's Acre Park	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	\$150,000
Briar Patch Park	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	\$150,000
Woodland Park	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	\$150,000
Indian Diamond Park	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	\$150,000
Civitan Kiddyland Park	5.8	5.8	5.8	5.8	5.8	5.8	5.8	5.8	5.8	5.8	\$150,000
Enchanted Forest Park	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	\$150,000
Jack Pine Park	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	\$150,000
Fish Hatchery Park	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	\$150,000
Kramers Korner Park	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	\$150,000
Turtle Park	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	\$150,000
Pine Ridge Park	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	\$150,000
Lakeview Park	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	\$150,000
Expo 150 Parkette	-	-	-	0.3	0.3	0.3	0.3	0.3	0.3	0.3	\$150,000
Coureur De Bois Parkette	-	-	-	0.2	0.2	0.2	0.2	0.2	0.2	0.2	\$150,000
Total	91.4	91.4	91.4	91.9	93.9	93.9	93.9	93.9	93.9	93.9	

Population	9,246	9,529	9,988	10,342	10,666	10,838	11,015	11,188	11,305	11,412
Per Capita Standard	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01

10 Year Average	2009-2018
Quantity Standard	0.0089
Quality Standard	\$86,170
Service Standard	\$767

D.C. Amount (before deductions)	10 Year
Forecast Population	1,257
\$ per Capita	\$767
Eligible Amount	\$964,006



Service: Parkland Trails
 Unit Measure: Linear Metres of Paths and Trails

Description	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019 Value (\$/ Linear Metre)
Fitness Trails/Millennium Trail	1,600	1,600	1,600	1,600	1,600	1,600	1,600	1,600	1,600	1,600	\$400
Woodland Trail	1,230	1,230	1,230	1,230	1,230	1,230	1,230	1,230	1,230	1,230	\$60
Total	2,830	2,830	2,830	2,830	2,830	2,830	2,830	2,830	2,830	2,830	

Population	9,246	9,529	9,988	10,342	10,666	10,838	11,015	11,188	11,305	11,412
Per Capita Standard	0.31	0.30	0.28	0.27	0.27	0.26	0.26	0.25	0.25	0.25

10 Year Average	2009-2018
Quantity Standard	0.2695
Quality Standard	\$252
Service Standard	\$68

D.C. Amount (before deductions)	10 Year
Forecast Population	1,257
\$ per Capita	\$68
Eligible Amount	\$85,438



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

Description	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019 Value (\$/Vehicle)
Tractor w/ Implements	1	1	1	1	1	1	1	1	1	1	\$47,000
1/2 ton Pick-up Truck	1	1	2	2	2	2	2	2	2	2	\$45,000
Utility Vehicle	2	2	3	3	3	3	3	3	3	3	\$12,000
Rotary Deck Mower	2	2	2	2	2	2	2	2	2	2	\$17,200
Trailer	2	2	2	3	3	3	3	3	3	3	\$17,600
Ice Resurfacer	1	1	1	1	1	1	1	1	1	1	\$87,100
Weed Steamer	1	1	1	1	1	1	1	1	1	1	\$17,200
Sports Field Implements	5	5	5	5	5	5	5	5	5	5	\$3,400
Handwash Station	-	-	1	1	1	1	1	1	1	1	\$3,400
Pick-up Truck	-	-	-	-	-	-	-	-	-	1	\$45,000
Stageline Mobile Stage (trailer)	-	-	-	-	-	-	1	1	1	1	\$70,000
North Canoes & Trailer (Two 25' Canoes and One Trailer)	-	-	-	-	-	-	-	1	1	1	\$35,000
Total	15	15	18	19	19	19	20	21	21	22	

Population	9,246	9,529	9,988	10,342	10,666	10,838	11,015	11,188	11,305	11,412
Per Capita Standard (per 1,000 population)	1.62	1.57	1.80	1.84	1.78	1.75	1.82	1.88	1.86	1.93

10 Year Average	2009-2018
Quantity Standard (per 1,000 population)	1.7848
Quality Standard	\$21,644
Service Standard	\$39

D.C. Amount (before deductions)	10 Year
Forecast Population	1,257
\$ per Capita	\$39
Eligible Amount	\$48,558



Service: Indoor Recreation Facilities
 Unit Measure: ft² of building area

Description	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019 Bld'g Value (\$/sq.ft.)	Value/sq.ft. with land, site works, etc.
Petawawa Civic Centre	30,256	30,256	30,256	30,256	30,256	30,256	30,256	30,256	30,256	30,256	\$224	\$ 253
Norman Behnke Hall	4,134	4,134	4,134	4,134	4,134	4,134	4,134	4,134	4,134	4,134	\$213	\$ 237
Outdoor Rink Change Facility/Garage	877	877	877	877	877	877	877	877	877	877	\$107	\$ 130
Washrooms/Rental Building at Petawawa Point	680	680	680	680	680	680	680	680	680	680	\$399	\$ 420
Total	35,947	35,947	35,947	35,947	35,947	35,947	35,947	35,947	35,947	35,947		

Population	9,246	9,529	9,988	10,342	10,666	10,838	11,015	11,188	11,305	11,412
Per Capita Standard	3.8878	3.7724	3.5990	3.4758	3.3702	3.3168	3.2635	3.2130	3.1797	3.1499

10 Year Average	2009-2018
Quantity Standard	3.4228
Quality Standard	\$251
Service Standard	\$860

D.C. Amount (before deductions)	10 Year
Forecast Population	1,257
\$ per Capita	\$860
Eligible Amount	\$1,081,297



Service: Library Facilities
 Unit Measure: ft² of building area

Description	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019 Bld'g Value (\$/sq.ft.)	Value/sq.ft. with land, site works, etc.
Library Building (Civic Centre)	12,000	12,000	12,000	12,000	12,000	12,000	12,000	12,000	12,000	12,000	\$224	\$253
Total	12,000	12,000	12,000	12,000	12,000	12,000	12,000	12,000	12,000	12,000		

Population	9,246	9,529	9,988	10,342	10,666	10,838	11,015	11,188	11,305	11,412
Per Capita Standard	1.2979	1.2593	1.2014	1.1603	1.1251	1.1072	1.0894	1.0726	1.0615	1.0515

10 Year Average	2009-2018
Quantity Standard	1.1426
Quality Standard	\$253
Service Standard	\$289

D.C. Amount (before deductions)	10 Year
Forecast Population	1,257
\$ per Capita	\$289
Eligible Amount	\$363,374



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

Description	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019 Value (\$/item)
Books	42,585	45,074	48,620	52,178	55,462	57,599	61,450	59,945	51,595	47,810	\$23
Music, Audio Books, Magazines, DVDs, Video Games	4,041	4,628	5,245	6,014	5,552	5,352	4,817	4,787	5,191	5,765	\$25
Photocopier/Printer/Fax	2	2	2	2	2	3	3	3	3	3	\$200
Bicycles	-	-	-	-	4	4	10	10	-	-	\$300
Snowshoes	-	-	-	3	3	3	3	10	11	12	\$70
Helmets	-	-	-	-	4	10	10	10	-	-	\$46
GPS Units	-	-	-	2	2	2	2	2	2	2	\$200
Binoculars	-	-	-	2	2	2	2	2	2	2	\$46
E-books	-	-	-	-	-	0.17	-	0.01	0.96	1.00	\$4,758
Databases	-	-	-	-	1.12	0.68	1.01	1.98	0.04	1.00	\$8,007
Total	46,628	49,704	53,867	58,201	61,032	62,976	66,298	64,771	56,805	53,596	

Population	9,246	9,529	9,988	10,342	10,666	10,838	11,015	11,188	11,305	11,412
Per Capita Standard	5.04	5.22	5.39	5.63	5.72	5.81	6.02	5.79	5.02	4.70

10 Year Average	2009-2018
Quantity Standard	5.4342
Quality Standard	\$23
Service Standard	\$127

D.C. Amount (before deductions)	10 Year
Forecast Population	1,257
\$ per Capita	\$127
Eligible Amount	\$159,186



Table C-1
Operating and Capital Expenditure Impacts for Future Capital Expenditures

SERVICE	ANNUAL LIFECYCLE EXPENDITURES	ANNUAL OPERATING EXPENDITURES	TOTAL ANNUAL EXPENDITURES
Transportation Services	72,621	19,705	92,326
Fire Protection Services	11,569	6,638	18,207
Parks and Recreation	97,221	51,195	148,416
Library Services	16,790	2,745	19,534
Administration - Studies	-	-	-
Wastewater Services	94,034	57,492	151,526
Water Services	19,911	13,978	33,889
Total	312,146	151,752	463,898



CORPORATION OF THE TOWN OF PETAWAWA

BY-LAW NUMBER ___/19

BEING A BY-LAW FOR THE IMPOSITION OF DEVELOPMENT CHARGES

WHEREAS the Town of Petawawa will experience growth through development and re-development;

AND WHEREAS development and re-development requires the provision of physical and social services by the Town of Petawawa;

AND WHEREAS Council desires to ensure that the capital cost of meeting growth-related demands for or burden on municipal services does not place an excessive financial burden on the Town of Petawawa or its existing taxpayers while at the same time ensuring new taxpayers contribute no more than the net capital cost attributable to providing the current level of municipal services;

AND WHEREAS the *Development Charges Act, 1997* (the “Act”) provides that the council of a municipality may by by-law impose development charges against land to pay for increased capital costs required because of increased needs for services;

AND WHEREAS a development charge background study has been completed in accordance with the Act;

AND WHEREAS the Council of The Corporation of the Town of Petawawa has given notice of and held a public meeting on the 17th day of June, 2019 in accordance with the Act and the regulations thereto;

NOW THEREFORE THE COUNCIL OF THE CORPORATION OF THE TOWN OF PETAWAWA ENACTS AS FOLLOWS:

DEFINITIONS

1. In this by-law,



- (1) “Act” means the *Development Charges Act*, as amended, or any successor thereof;
- (2) “apartment unit” means any residential unit within a building containing more than four dwelling units where the units are connected by an interior corridor;
- (3) “bedroom” means a habitable room which can be used as sleeping quarters, but does not include a bathroom, living room, dining room or kitchen;
- (4) “board of education” has the same meaning as set out in the *Education Act*, R.S.O. 1990, Chap. E.2, as amended, or any successor thereof;
- (5) “bona fide farm uses” means the proposed development that will qualify as a farm business operating with a valid Farm Business Registration Number issued by the Ontario Ministry of Agriculture, Food and Rural Affairs and be assessed in the Farmland Realty Tax Class by the Ontario Property Assessment Corporation;
- (6) “Building Code Act” means the *Building Code Act*, S.O. 1992, as amended, or any successor thereof;
- (7) “capital cost” means costs incurred or proposed to be incurred by the municipality or a local board thereof directly or by others on behalf of and as authorized by the municipality or local board,
 - (a) to acquire land or an interest in land, including a leasehold interest,
 - (b) to improve land,
 - (c) to acquire, lease, construct or improve buildings and structures,
 - (d) to acquire, construct or improve facilities including,
 - (i) furniture and equipment other than computer equipment, and
 - (ii) material acquired for circulation, reference or information purposes by a library board as defined in the *Public Libraries*



Act, R.S.O. 1990, Chap. P.44, as amended, or any successor thereof; and

- (iii) rolling stock with an estimated useful life of seven years or more, and
 - (e) to undertake studies in connection with any matter under the Act and any of the matters in clauses (a) to (d) above, including the development charge background study required for the provision of services designated in this By-law within or outside the municipality, including interest on borrowing for those expenditures under clauses (a) to (e) above that are growth-related;
- (8) “commercial” means any use of land, structures or buildings for the purposes of buying or selling commodities and services, but does not include industrial or agricultural uses, but does include hotels, motels, motor inns and boarding, lodging and rooming houses;
 - (9) “Council” means the Council of the Town of Petawawa;
 - (10) “development” means the construction, erection or placing of one or more buildings or structures on land or the making of an addition or alteration to a building or structure that the effect of increasing the size of usability thereof, and includes redevelopment;
 - (11) “development charge” means a charge imposed with respect to this By-law;
 - (12) “dwelling unit” means any part of a building or structure used, designed or intended to be used as a domestic establishment in which one or more persons may sleep and are provided with culinary and sanitary facilities for their exclusive use;
 - (13) “existing” means the number, use and size that existed as of the date this by-law was passed;
 - (14) “farm building” means that part of a bona fide farming operation encompassing barns, silos and other ancillary development to an agricultural use, but excluding a residential use;



- (15) “gross floor area” means:
- (a) in the case of a residential building or structure, the total area of all floors above grade of a dwelling unit measured between the outside surfaces of exterior walls or between the outside surfaces of exterior walls and the centre line of party walls dividing the dwelling unit from any other dwelling unit or other portion of a building; and
 - (b) in the case of a non-residential building or structure, or in the case of a mixed-use building or structure in respect of the non-residential portion thereof, the total area of all building floors above or below grade measured between the outside surfaces of the exterior walls, or between the outside surfaces of exterior walls and the centre line of party walls dividing a non-residential use and a residential use, except for:
 - (i) a room or enclosed area within the building or structure above or below that is used exclusively for the accommodation of heating, cooling, ventilating, electrical, mechanical or telecommunications equipment that service the building;
 - (ii) loading facilities above or below grade; and
 - (iii) a part of the building or structure below grade that is used for the parking of motor vehicles or for storage or other accessory use;
- (16) “industrial” means lands, buildings or structures used or designed or intended for use for manufacturing, processing, fabricating or assembly of raw goods, warehousing or bulk storage of goods, and includes office uses and the sale of commodities to the general public where such uses are accessory to an industrial use, but does not include the sale of commodities to the general public through a warehouse club;
- (17) “institutional” means land, buildings, structures or any part thereof used by any organization, group or association for promotion of charitable, educational or benevolent objectives and not for profit or gain;



- (18) “Local Board” means a school board, municipal service board, transportation commission, public library board, board of health, police services board, planning board, or any other board, commission, committee, body or local authority established or exercising any power or authority under any general or special Act with respect to any of the affairs or purposes, including school purposes, of a municipality or of two or more municipalities or parts thereof;
- (19) “local services” means those services, facilities or things which are under the jurisdiction of the Town of Petawawa and are related to a plan of subdivision or within the area to which the plan relates in respect of the lands under Sections 41, 51 or 53 of the *Planning Act*, R.S.O. 1990, Chap. P.13, as amended, or any successor thereof;
- (20) “mobile home” means any dwelling that is designed to be made mobile, and constructed or manufactured to provide a permanent residence for one or more persons, but does not include a travel trailer or tent trailer;
- (21) “multiple dwellings” means all dwellings other than single-detached, semi-detached, apartment unit dwellings;
- (22) “municipality” means the Corporation of the Town of Petawawa;
- (23) “non-residential use” means a building or structure of any kind whatsoever used, designed or intended to be used for other than a residential use;
- (24) “Official Plan” means the Official Plan adopted for the Town, as amended and approved;
- (25) “owner” means the owner of land or a person who has made application for an approval for the development of land upon which a development charge is imposed;
- (26) “place of worship” means that part of a building or structure that is exempt from taxation as a place of worship under the *Assessment Act*, R.S.O. 1990, Chap. A.31, as amended, or any successor thereof;
- (27) “rate” means the interest rate established weekly by the Bank of Canada based on Treasury Bills having a term of 91 days;



- (28) “regulation” means any regulation made pursuant to the Act;
- (29) “residential dwelling” means a building, occupied or capable of being occupied as a home, residence or sleeping place by one or more persons, containing one or more Dwelling Units but not including motels, hotels, tents, truck campers, tourist trailers, mobile camper trailers or boarding, lodging or rooming houses;
- (30) “residential use” means the use of a building or structure or portion thereof for one or more Dwelling Units. This also includes a Dwelling Unit on land that is used for an Agricultural Use;
- (31) “row dwelling” means a building containing three or more attached dwelling units in a single row, each of which dwelling units has an independent entrance from the outside and is vertically separated from any abutting dwelling unit;
- (32) “semi-detached dwelling” means a dwelling unit in a residential building consisting of two dwelling units having one vertical wall or one horizontal wall, but not other parts, attached or another dwelling unit where the residential unit are not connected by an interior corridor;
- (33) “service” means a service designed in Schedule “A” to this By-law, and “services” shall have a corresponding meaning;
- (34) “servicing agreement” means an agreement between a landowner and the municipality relative to the provision of municipal services to specified land within the municipality;
- (35) “single detached dwelling unit” means a residential building consisting of one dwelling unit and not attached to another structure;
- (36) “Town” means the area within the geographic limits of the Town of Petawawa; and
- (37) “Zoning By-Law” means the Zoning By-Law of the Town of Petawawa or any successor thereof passed pursuant to Section 34 of the *Planning Act*, S.O. 1998.



2. DESIGNATION OF SERVICES

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

- (a) Transportation Services;
- (b) Fire Protection Services;
- (c) Parks and Recreation Services;
- (d) Library Services;
- (e) Administration Services;
- (f) Water Services; and
- (g) Wastewater Services.

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

3. APPLICATION OF BY-LAW RULES

3.1 Development charges shall be payable in the amounts set out in this By-law where:

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

Area to Which By-law Applies

3.2 Subject to section 3.3, this By-law applies to all lands in the Town of Petawawa whether or not the land or use thereof is exempt from taxation under s.13 or the Assessment Act.



3.3. Notwithstanding clause 3.2 above, this by-law shall not apply to lands that are owned by and used for the purposes of:

- (a) the municipality or a local board thereof; or
- (b) the County of Renfrew or any local board thereof;
- (c) a board of education; or
- (d) Garrison Petawawa.

Approvals for Development

- 3.4 (a) Development charges shall be imposed on all lands, buildings or structures that are developed for residential or non-residential uses if the development requires:
- (i) the passing of a zoning by-law or of an amendment to a zoning by-law under section 34 of the *Planning Act*;
 - (ii) the approval of a minor variance under section 45 of the *Planning Act*;
 - (iii) a conveyance of land to which a by-law passed under subsection 50(7) of the *Planning Act* applies;
 - (iv) the approval of a plan of subdivision under section 51 of the *Planning Act*;
 - (v) a consent under section 53 of the *Planning Act*;
 - (vi) the approval of a description under section 50 of the *Condominium Act*, R.S.O. 1990, Chap. C.26, as amended, or any successor thereof; or
 - (vii) the issuing of a permit under the *Building Code Act* in relation to a building or structure.
- (b) No more than one development charge for each service designated in subsection 2.1 shall be imposed upon any lands, buildings or structures to



which this By-law applies even though two or more of the actions described in subsection 3.4(a) are required before the lands, buildings or structures can be developed.

- (c) Despite subsection 3.4(b), if two or more of the actions described in subsection 3.4(a) occur at different times, additional development charges shall be imposed if the subsequent action has the effect of increasing the need for services.

Exemptions

3.5 Notwithstanding the provisions of this By-law, development charges shall not be imposed with respect to:

- (a) an enlargement to an existing dwelling unit;
- (b) one or two additional dwelling units in an existing single detached dwelling; or
- (c) one additional dwelling unit in any other existing residential building;

3.6 Notwithstanding section 3.5(b), development charges shall be imposed if the total gross floor area of the additional one or two units exceeds the gross floor area of the existing dwelling unit.

3.7 Notwithstanding section 3.5, development charges shall be imposed if the additional unit has a gross floor area greater than

- (a) in the case of a semi-detached or row dwelling, the gross floor area of the existing dwelling unit; and
- (b) in the case of any other residential building, the gross floor area of the smallest dwelling unit contained in the residential building.

3.8 **Exemption for Industrial Development:**

3.8.1 Notwithstanding any other provision of this by-law, no development charge is payable with respect to an enlargement of the gross floor area of an existing industrial building where the gross floor area is enlarged by 50 percent or less.



3.8.2 If the gross floor area of an existing industrial building is enlarged by greater than 50 percent, the amount of the development charge payable in respect of the enlargement is the amount of the development charge that would otherwise be payable multiplied by the fraction determined as follows:

- (a) determine the amount by which the enlargement exceeds 50 percent of the gross floor area before the enlargement;
- (b) divide the amount determined under subsection 3.8.2 (a) by the amount of the enlargement.

3.8.3 For the purpose of section 3.8 herein, “existing industrial building” is used as defined in the Regulation made pursuant to the Act.

3.9 Other Exemptions:

Notwithstanding the provision of this by-law, development charges shall not be imposed with respect to:

- (a) Lands, buildings or structures used or to be used for a place of worship or for the purposes of a churchyard or cemetery exempt from taxation under the Assessment Act; and
- (b) The development of non-residential farm buildings constructed for bona-fide farm uses.

Amount of Charges

Residential

3.10 The development charges set out in Schedule B shall be imposed on residential uses of lands, buildings or structures, including a dwelling unit accessory to a non-residential use and, in the case of a mixed use building or structure, on the residential uses in the mixed use building or structure, according to the type of residential unit, and calculated with respect to each of the services according to the type of residential use.



Non-Residential

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

Reduction of Development Charges for Redevelopment

3.12 Despite any other provisions of this By-law, where, as a result of the redevelopment of land, a building or structure existing on the same land within 24 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 principal use on the same land, in order to facilitate the redevelopment, the development charges otherwise payable with respect to such redevelopment shall be reduced by the following amounts:

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

Time of Payment of Development Charges

3.13 Development charges shall be calculated and payable in money or by provision of service as may be agreed upon, or by credit granted under the Act, on the



date that the building permit is issued in relation to a building or structure on land to which the development charge applies.

- 3.14 Where development charges apply to land in relation to which a building permit is required, the building permit shall not be issued until the development charge has been paid in full.

4. PAYMENT BY SERVICES

- 4.1 Despite the payment required under subsections 3.10 and 3.11, Council may, by agreement, give a credit towards a development charge in exchange for work that relates to a service to which a development charge relates under this By-law.

5. INDEXING

- 5.1 Development charges imposed pursuant to this By-law shall be adjusted annually on January 1, without amendment to this By-law, in accordance with the second quarter of the prescribed index in the Act.

6. SCHEDULES

- 6.1 The following schedules shall form part of this By-law:

Schedule A – Components of Services Designated in subsection 2.1

Schedule B – Residential and Non-Residential Schedule of Development Charges

7. CONFLICTS

- 7.1 Where the Town and an owner or former owner have entered into an agreement with respect to land within the area to which this By-law applies, and a conflict exists between the provisions of this By-law and such agreement, the provisions of the agreement shall prevail to the extent that there is a conflict.
- 7.2 Notwithstanding section 7.1, where a development which is the subject of an agreement to which section 7.1 applies, is subsequently the subject of one or more of the actions described in subsection 3.4(a), an additional development charge in respect of the development permitted by the action shall be calculated,



payable and collected in accordance with the provisions of this By-law if the development has the effect of increasing the need for services, unless such agreement provides otherwise.

8. SEVERABILITY

8.1 If, for any reason, any provision of this By-law is held to be invalid, it is hereby declared to be the intention of Council that all the remainder of this By-law shall continue in full force and effect until repealed, re-enacted, amended or modified.

9. DATE BY-LAW IN FORCE

9.1 This By-law shall come into effect at 12:01 AM on _____, 2019.

10. DATE BY-LAW EXPIRES

10.1 This By-law will expire at 12:01 AM on _____, 2024 unless it is repealed by Council at an earlier date.

READ a FIRST, SECOND and THIRD TIME and FINALLY PASSED on this 15th day of July, 2019.

Mayor

Clerk



SCHEDULE "A" to BY-LAW ___/19

COMPONENTS OF SERVICES DESIGNATED IN SUBSECTION 2.1

Municipal-Wide Services

- Transportation Services
 - Roads
 - Sidewalks and Streetlights
 - Public Works Facilities
 - Public Works Rolling Stock

- Fire Protection Services
 - Fire Facilities
 - Fire Vehicles
 - Fire Small Equipment and Gear

- Parks and Recreation Services
 - Parkland Development
 - Parkland Trails
 - Parkland Amenities
 - Recreation Facilities
 - Parks and Recreation Vehicles and Equipment

- Library Services
 - Library Facilities
 - Library Collection Materials

- Administration Services
 - Growth Related Studies

Area-Specific Services

- Water Services
 - Water Distribution
 - Water Treatment

- Wastewater Services
 - Wastewater Collection
 - Wastewater Treatment



**SCHEDULE “B” to BY-LAW ___/19
SCHEDULE OF DEVELOPMENT CHARGES**

Service	RESIDENTIAL				NON-RESIDENTIAL (per sq.ft. of Gross Floor Area)
	Single and Semi-Detached Dwelling	Apartments - 2 Bedrooms +	Apartments - Bachelor and 1 Bedroom	Other Multiples and Mobile Homes	
Municipal Wide Services:					
Transportation Services	\$ 1,359	\$ 732	\$ 510	\$ 1,055	\$ 1.17
Fire Protection Services	\$ 156	\$ 84	\$ 59	\$ 121	\$ 0.13
Parks and Recreation	\$ 1,264	\$ 681	\$ 475	\$ 981	\$ 0.10
Library Services	\$ 213	\$ 115	\$ 80	\$ 165	\$ 0.02
Administration - Studies	\$ 151	\$ 81	\$ 57	\$ 117	\$ 0.13
Total Municipal Wide Services	\$ 3,143	\$ 1,693	\$ 1,181	\$ 2,439	\$ 1.55
Urban Services					
Wastewater Services	\$ 1,914	\$ 1,031	\$ 719	\$ 1,486	\$ 1.33
Water Services	\$ 468	\$ 252	\$ 176	\$ 363	\$ 0.31
Total Urban Services	\$ 2,382	\$ 1,283	\$ 895	\$ 1,849	\$ 1.64
GRAND TOTAL RURAL AREA	\$ 3,143	\$ 1,693	\$ 1,181	\$ 2,439	\$ 1.55
GRAND TOTAL URBAN AREA	\$ 5,525	\$ 2,976	\$ 2,076	\$ 4,288	\$ 3.19