

Fiscal Impact Assessment Proposed Developments of Nina Court, Centre Street, and Turner Street

Township of Cavan Monaghan

Draft – For Discussion Purposes

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 **Planning for growth**

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1. Introduction

1.1 Terms of References

The Township of Cavan Monaghan (“Township”) has received three concurrent Plans of Subdivision from the Veltri Group to develop residential subdivisions in the Millbrook area of the Township. These plans are for an extension to Turner Street, an extension to Nina Court, and an extension to Centre Street. The proposed developments would include a mix of single-detached and semi-detached homes, townhomes and apartments. The three developments would consist of the following components:

Centre Street

- 18 Semi-detached;
- 15 Townhomes;
- 18 Apartments;
- 0.13 hectares for stormwater management;
- 7.08 hectares of open space; and
- 0.24 km of roads.

Turner Street

- 59 Single-detached;
- 26 Semi-detached;
- 0.40 hectares for stormwater management;
- 5.76 hectares of open space; and
- 0.61 km of roads.

Nina Court

- 6 Single-detached;
- 26 Semi-detached;
- 0.36 hectares for stormwater management;
- 2.94 hectares of open space;
- 0.17 km of roads.

The Township requires the Veltri Group to submit a fiscal impact analysis for the proposed subdivisions. The Veltri Group has retained Watson & Associates Economists Ltd. to undertake a fiscal analysis of the impact of this development on the Township. This analysis is to assess the impact of this development on services provided by the Township and determine the capital and operating expenditure implications along with the anticipated revenues to be generated from this development.

1.2 Approach

The approach utilized in this analysis is consistent with the methodology devised by the firm and used for over 30 years to evaluate fiscal impact for more than three dozen landowners, the Ministry of Municipal Affairs, the Ontario Land Corporation, Canada Mortgage and Housing Corporation (C.M.H.C.), and municipalities such as Oakville, Burlington, Halton Hills, Caledon, York Region, East Gwillimbury, Collingwood, Durham Region, Pickering, Haldimand-Norfolk, Halton Region, Georgian Bay Township and others.

Essentially, the methodology involves an operating and capital cost analysis. The operating cost analysis involves calculating the municipalities' most recent tax rate calculation with the addition of the subject development. Revenues and expenditures attributable to the development are estimated on an incremental basis. That is, revenue and expenditure dollars are assigned to the project, only in accordance with anticipated variations it would create from the 2016 base year, if it had been built-out, as of that time. Sunk costs are ignored and service levels are planned as remaining generally constant.

The capital cost analysis discusses the funding sources available to the Township. The financing methods selected, and the resultant charges involved are variable, depending on ultimate servicing solutions, municipal financial policy decisions, and detailed benefiting area calculations.

2. Development Description

2.1 Introduction

This chapter of the report describes the proposal with respect to those matters most relevant to a fiscal impact assessment – land use, building area, development units, number of residents and employees and rate of development, as well as future assessment.

2.2 Development Proposals

As noted in Chapter 1, the Veltri Group has three proposed development applications submitted to the Township. These developments are Nina Court, Centre Street, and Turner Street, are all located in the Millbrook area, and all consist of only residential development.

Nina Court

The proposed development for Nina Court provides an extension of the current Nina Court to the East.

The proposed development will include 6 single-detached homes and 26 semi-detached homes. The single-detached homes will be on 12 metre lots, whereas the semi-detached dwellings will be on 18m lots. Map 2-1 provides an overview of the proposed development.

Phasing of this development has not been provided, therefore the analysis will be conducted based on when the development reaches buildout.

Centre Street

The proposed development for Centre Street provides an extension of the current Centre Street to the west which will curve north and end in a cul-de-sac. Additionally, a 3-storey condominium apartment building will be constructed on King Street West (on the north side), west of Cavan Street.

The proposed development will include 18 semi-detached homes, 15 townhomes, and 18 apartment units. The semi-detached homes will be on 18 and 21 metre lots. The apartment units are proposed to be condominium owned. Map 2-2 provides an overview of the proposed development.

Phasing of this development has not been provided, therefore the analysis will be conducted based on when the development reaches buildout.

Turner Street

The proposed development for Turner Street provides an extension of the existing Turner Street to the north.

The proposed development will include 59 single-detached homes and 26 semi-detached units. The single-detached homes will be on lots ranging from 10.7 metre to 12.2 metres. The semi-detached homes will be on 18 metre lots. Map 2-3 provides an overview of the proposed development.

Phasing of this development has not been provided, therefore the analysis will be conducted based on when the development reaches buildout.

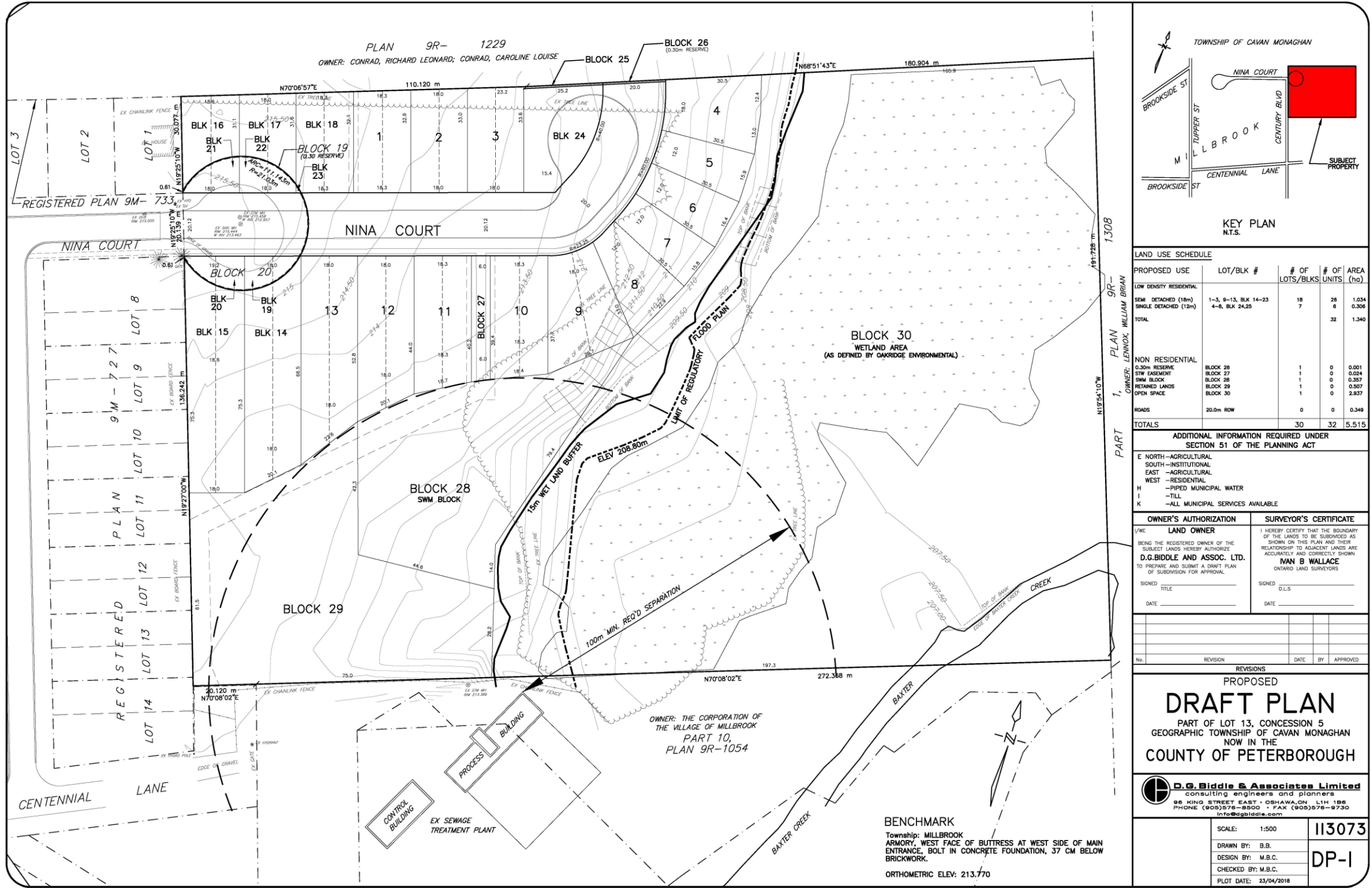
Summary of Three Developments

In total, the developments will include 65 single-detached units, 70 semi-detached units, 15 townhomes, and 18 apartment units. Table 2-1 provides a summary of the proposed developments and Table 2-2 provides the estimated population arising from the developments.

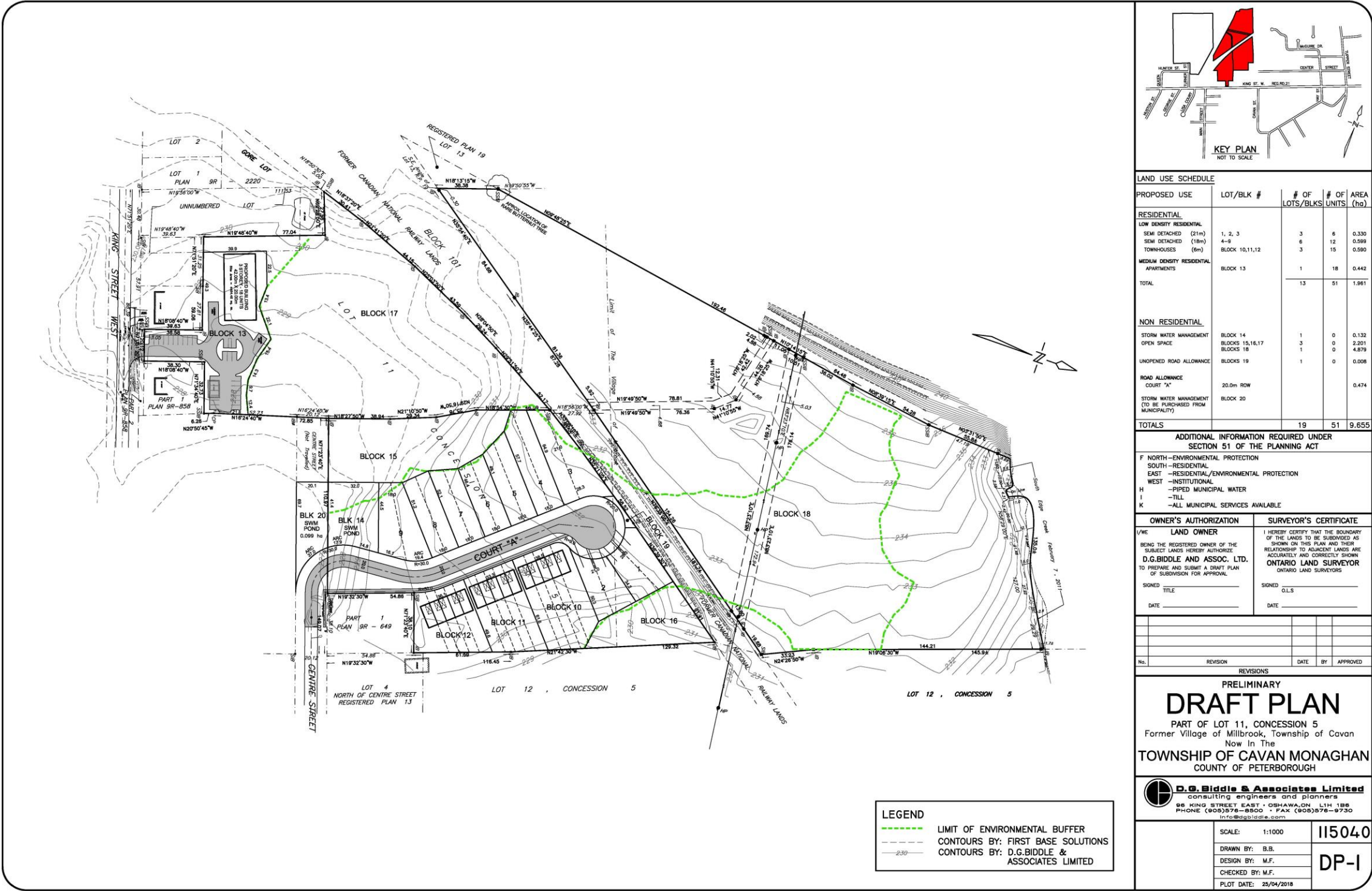
Table 2-1
Township of Cavan Monaghan – Veltri Group Developments
Summary of Proposed Development

Residential Type	Number of Units			
	Nina Court	Centre Street	Turner Street	Total
Single-Detached Dwellings	6	-	59	65
Semi-detached Dwellings	26	18	26	70
Block Townhouses	-	15	-	15
Apartments	-	18	-	18
Total	32	51	85	168

Map 2-1
Nina Court
Draft Plan



Map 2-2
Centre Street
Draft Plan



Map 2-3
Turner Street
Draft Plan

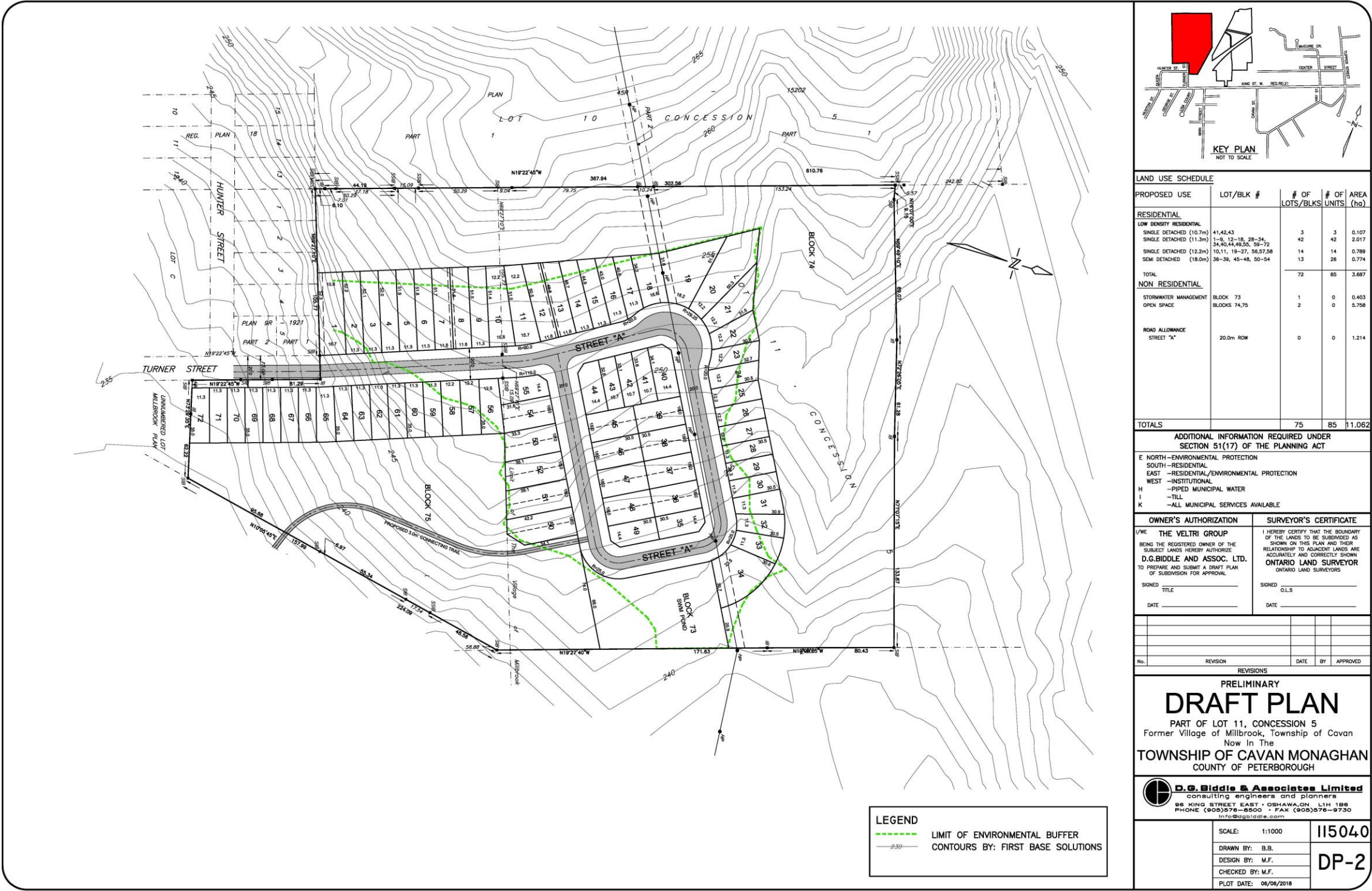


Table 2-2
Township of Cavan Monaghan – Veltri Group Developments
Growth Forecast

Population

Type of Units	Population Increment			
	Nina Court	Centre Street	Turner Street	Total
Single-Detached Dwellings	19	-	189	208
Semi-detached Dwellings	83	58	83	224
Block Townhouses	-	31	-	31
Apartments	-	26	-	26
Total	102	115	272	489

**Based on Single Detached PPU of 3.20, Multiple PPU of 2.08, and Apartment PPU of 1.42 as provided in the Township's June 5, 2015 DC Background Study*

2.3 Assessment Assumptions

As the new developments are constructed, the Township will receive additional assessment arising from the completion of the units. Table 2-3 provides for the total estimated new assessment to be generated from the development. This estimated assessment was calculated based upon the following steps:

- Average anticipated sales price data was provided by Veltri Group for single-detached dwellings, semi-detached dwellings, and townhouses.
- Assessed values for single-detached and semi-detached units are based on the assessment per unit utilized in the recent Fiscal Impact Studies for developments in the Millbrook area. From the previous studies, the following provides the explanation of how assessment was estimated:
 - A survey of sales price and assessment for single detached homes in the Newcastle area was used to test the annual variation between the assessed value and sales price. This difference averages 5% per year.
 - The Newcastle average sales price, less an \$80,000 deduction was used for the average selling price of a single detached home for the Millbrook area (as per the direction of the developer).
- As townhomes are relatively uncommon in the area, the estimated assessment has been calculated based on the relationship between sales price and assessment for single-detached and semi-detached dwellings.
- As condominium apartments are also uncommon in the area, the assessed value for apartments has been determined based on a survey of assessed values for recently constructed condominium apartments in Peterborough.

- The total sales revenue and assessed values were calculated using the selling price per unit and assessed value per unit multiplied by the number of units for each development type.

Table 2-3
Township of Cavan Monaghan – Veltri Group Developments
Basis of Assessment Estimates

Residential

Unit Type	Number of Units	Estimated Average Selling Price per Unit ²	Estimated Assessment per Unit ^{1,3,4}	Assessed Value (2016 \$)
Single-Detached Dwellings	65	650,000	330,000	\$21,450,000
Semi-detached Dwellings	70	550,000	279,000	\$19,530,000
Block Townhouses	15	450,000	228,000	\$3,420,000
Apartments	18	N/A	185,000	\$3,330,000
Total	168			\$47,730,000

1 The assessed value is based on the assessment per unit utilized in recent Fiscal Impact Studies for developments in the Millbrook area. As home prices have increased dramatically in the past few years, utilizing an analysis of the historical relationship between sales prices and assessment may not provide accurate results. The above provides for a conservative estimate.

2 The sale price was provided by the developer as an estimate for singles, semis, and townhouses. The sales price for apartments has not been provided at this time.

3 The assessed value for Townhouses are based on the relationship between the single-detached dwelling assessed value and anticipated sales price.

4 The assessed value for Apartments is based a survey of assessed values for recently constructed condominium apartments in Peterborough.

3. Impact on the Township of Cavan Monaghan Capital Program

3.1 Introduction

The Township's capital budget consists predominantly of non-growth-related capital projects. It is noted that some level of capital spending for growth has been made but more intermittently from year to year. The Township's residential and non-residential share of growth-related costs are partially funded from development charges.

Non-growth-related capital expenditures, which cover repairs, replacements, non-recoverable DC items, etc., are financed from existing reserves/reserve funds, operating budget transfers, debt, grant/ subsidies (when available) and related sources.

3.2 Direct Development-related Capital Costs

The following provides an overview of the capital needs and commentary on the impact of each development on Township services:

Nina Court

Roads:

- The development includes approximately 0.17 km of local (internal) roads within the site plan area. Under the Township's Local Service Policy, the development of this road is a direct developer responsibility and will be funded fully by the developer.
- Block 27 of the site plan will need to be used to construct an emergency access since there is only one entrance to the Nina Court extension. This will be a 3-metre-wide asphalt walkway but will double as a second access. This would be constructed by the developer and dedicated to the Township.
- The internal road will have a sidewalk constructed on one side as per Township policy. This will require a connection to the existing sidewalk on the South side of Nina Court to Century Boulevard. As per the Township's Local Service Policy, these sidewalks will be constructed and funded by the developer.
- Once the subdivision is assumed by the Township, maintenance and winter control costs will be borne by the Township.

Parkland:

- No parkland has been included in the site plan, however, the developer will provide cash-in-lieu of parkland to the Township.

Stormwater Management:

- The development includes a stormwater management pond with an area of 0.36 ha. Under the Township's Local Service Policy, quality and quantity works are a direct developer responsibility.
- Additionally, it is anticipated that storm sewer will be provided along the length of the roadway. As per the Township's Local Service Policy, these works would be constructed and funded by the developer.

Water:

- The proposed development is assumed to include 0.17 km of local mains to service the units. Under the Township's Local Service Policy these works would be considered a direct developer responsibility (as these mains are assumed to be 350 mm or less).

Wastewater:

- The proposed development is assumed to include 0.17 km of local mains to service the units. Under the Township's Local Service Policy works internal to the subdivision 350 mm or less are a direct developer responsibility (as these mains are assumed to be 350 mm or less).

Centre Street

Roads:

- The development includes approximately 0.24 km of local (internal) roads within the site plan area. Under the Township's Local Service Policy, the development of these roads is a direct developer responsibility and will be funded fully by the developer.
- As per Township policy, sidewalks will be constructed on one side of the new road which will be a responsibility of the developer as per the Township's Local Service Policy.
- Once the subdivision is assumed by the Township, maintenance and winter control costs will be borne by the Township.

- For the apartment building, there will be a parking lot and private condominium-owned local road. This will be fully funded by the developer and assumed by the condominium corporation that purchases the site.

Parkland:

- No parkland has been included in the site plan, however, the developer will provide cash-in-lieu of parkland to the Township.

Stormwater Management:

- The development includes a stormwater management pond with an area of 0.24 ha. Under the Township's Local Service Policy, quality and quantity works are a direct developer responsibility.
- Additionally, it is anticipated that storm sewer will be provided along the length of the roadway. As per the Township's Local Service Policy, these works would be constructed and funded by the developer.

Water:

- The proposed development is assumed to include 0.24 km of local mains to service the units. Under the Township's Local Service Policy these works would be considered a direct developer responsibility (as these mains are assumed to be 350 mm or less).

Wastewater:

- The proposed development is assumed to include 0.24 km of local mains to service the units. Under the Township's Local Service Policy works internal to the subdivision 350 mm or less are a direct developer responsibility (as these mains are assumed to be 350 mm or less).

Turner Street

Roads:

- The development includes approximately 0.61 km of local (internal) roads within the site plan area. Under the Township's Local Service Policy, the development of this road is a direct developer responsibility and will be funded fully by the developer.
- The internal road will have a sidewalk constructed on one side as per Township policy. This will require a connection to the existing sidewalk on Turner Street, south

to King Street. As per the Township's Local Service Policy, these sidewalks will be constructed and funded by the developer.

- Once the subdivision is assumed by the Township, maintenance and winter control costs will be borne by the Township.

Parkland:

- No parkland has been included in the site plan, however, the developer will provide cash-in-lieu of parkland to the Township.

Stormwater Management:

- The development includes a stormwater management pond with an area of 0.40 ha. Under the Township's Local Service Policy, quality and quantity works are a direct developer responsibility.
- It is anticipated that storm sewer will be provided along the length of the roadway. Additionally, the storm sewers will have to be extended to connect with the existing storm system on King Street. As per the Township's Local Service Policy, these works would be constructed and funded by the developer.

Water:

- The proposed development is assumed to include 0.77 km of local mains to service the units. Under the Township's Local Service Policy these works would be considered a direct developer responsibility (as these mains are assumed to be 350 mm or less).

Wastewater:

- The proposed development is assumed to include 0.77 km of local mains to service the units. Under the Township's Local Service Policy works internal to the subdivision 350 mm or less are a direct developer responsibility (as these mains are assumed to be 350 mm or less).

3.3 Indirect Development-related Capital Costs

The Township's D.C. background study identified a forecasted growth of 2,460 population in the Millbrook area and 2,957 in the Township over their buildout forecast. As the proposed developments include provision for additional population of 489 (based on the P.P.U.s provided in the D.C. study), this amounts to 19.88% of the development in the Millbrook area and 16.54% of the development anticipated in the Township. The

development charge provides for services which are external to the development to which a broader benefit is to be derived. An overview of the services is provided below.

Roads and Related:

The Township's D.C. background study has identified a number of roads and sidewalks to be constructed due to growth. As development occurs throughout the Township, the need for these projects will be required. Further, a depot at the Cavan Works Yard, a tandem dump truck/plow, and a bobcat have been identified to facilitate the road-related needs due to growth.

Fire Protection:

The expansion of the new Firehall Number 1 should be sufficient to accommodate these proposed developments.

Police Services:

The D.C. makes provision for additional police building space and equipment commensurate with growth. Hence, as growth occurs, further capital needs will be identified and acquired.

Parks and Recreation:

The construction of the Community Centre/Arena anticipated over the next few years would be sufficient to service the additional population growth resulting from the new development.

Library Services:

The D.C. makes provision for additional library space and to expand collection materials. As development throughout the Township occurs, this will facilitate the additional capital needs.

Water Services:

The D.C. makes provision for a number of water works to service the Millbrook area. These works include a standby generator, radio meter reading, standpipe, watermain, scada system upgrades, engineering, and studies.

Wastewater Services:

The D.C. makes provision for a number of wastewater works to service the Millbrook area. These works include rehabilitation of Millbrook collection system, wastewater treatment plant expansion and pumping station, sanitary sewer works, scada system upgrades, engineering, and studies.

3.4 Township's Development Charge Policies

Based on the Township's Development Charge By-law (2015-38), as amended, the following development charge collections are expected:

Table 3-1
Township of Cavan Monaghan – Veltri Group Developments
Anticipated D.C. Revenues Based on Current Rates

Residential	Number of Units			
	Nina Court	Centre Street	Turner Street	Total
Single-Detached Dwellings	6	-	59	65
Semi-detached Dwellings	26	18	26	70
Block Townhouses	-	15	-	15
Apartments	-	18	-	18
Total	32	51	85	168

Residential	Development Charges			
	Nina Court	Centre Street	Turner Street	Total
Single-Detached Dwellings	114,528.48	-	1,126,196.72	1,240,725
Semi-detached Dwellings	496,290.08	343,585.44	496,290.08	1,336,166
Block Townhouses	-	186,120.00	-	186,120
Apartments	-	164,272.77	-	164,273
Total	610,819	693,978	1,622,487	2,927,284

As noted in the previous section, this development accounts for approximately 17% of the growth anticipated in the Township. However, the growth attributed to these developments was incorporated into the D.C. growth forecast and therefore the capital needs identified in the D.C. should be sufficient to support this development. Further, the development charges collected will be utilized to fund the growth-related capital projects identified in the D.C. study.

4. Impact on the Township of Cavan Monaghan's Operating Budget

4.1 Introduction

This chapter examines the potential impact of buildout of the subdivision proposals on the Township's operating budget. This is done by examining the revenue and expenditure implications separately, and then together with reference to net operating position. Additional analysis has been carried out, as well, to include lifecycle costs resulting from works required by this development. In the analysis below, the resultant impact on water and wastewater services in the Township is calculated separately.

4.2 Operating Expenditure Implications

Table 4-1 summarizes the Township's "Revenue Fund" or "Operating Fund" transactions for 2016 (based on the Township's Financial Information Return (F.I.R.)). This represents a simple "model" of the Township's financial position for the operating fund and provides the structure of the financial impact analysis contained in this chapter.

Table 4-2 modifies the operating expenditures shown in Table 4-1 by netting "Interest on Long Term Debt", "External Transfers", and "Amortization" from the total. The debt charges are for "sunk" investments, unaffected by growth. The external transfers can vary significantly from year to year and relate largely to capital expenditures and general reserves, which are addressed separately in this analysis. Further, amortization is an accounting allocation which seeks to capture annual replacement costs. As this is based on historic costs, a separate analysis on lifecycle expenditures (based on future replacement cost) is conducted later in this report. It is therefore appropriate to remove these three classes of expenditures from the spending base, before determining incremental loss and/or average operating fund spending levels per capita and employee.

Table 4-3 allocates the Township's existing operating expenditure components between the needs of residential development and non-residential development (i.e. industrial, commercial and institutional), based on differences in the amount of such development and the need for particular types of services in each case. The expenditure allocation is then presented on a per household/per employee basis.

Table 4-4 assesses each of the Township's key service components in relation to the proposed development, to determine how the operating costs are likely to be impacted, based on the characteristics and location of the subject development.

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Table 4-1
Township of Cavan Monaghan – Veltri Group Developments
Summary of Consolidated Expenditures, Revenues, and Tax Rates
2016 (F.I.R. Data)
(‘000’s \$)

Summary of Consolidated Expenditures, Revenues, and Tax Rates 2016	General Levy
1. GROSS EXPENDITURES	
1.1 General Government	1,182.7
1.2 Fire	1,045.7
1.3 Police	1,236.5
1.4 Conservation Authority	185.5
1.5 Protective Inspection and Control	32.2
1.6 Building Permit and Inspection Services	180.2
1.7 Emergency Measures	6.1
1.8 Other: Truck	0.5
1.9 Roadways & Winter Control	2,347.3
1.10 Parking	0.7
1.11 Street Lighting	31.4
1.12 Wastewater Collection/Conveyance	70.6
1.13 Wastewater Treatment & Disposal	712.7
1.14 Urban Storm Sewer System	0.0
1.15 Rural Storm Sewer System	54.3
1.16 Water Treatment	183.9
1.17 Water Distribution/Transmission	369.3
1.18 Solid Waste Collection	61.5
1.19 Solid Waste Disposal	133.9
1.20 Waste Diversion	5.4
1.21 Other: Risk management	18.2
1.22 Parks	266.4
1.23 Recreation Facilities	595.5
1.24 Libraries	380.6
1.25 Other: Recreation and BIA	7.3
1.26 Planning and Zoning	167.6
1.27 Commercial and Industrial	133.8
1.28 Other: Truck	0.8
Total Gross Expenditures	9,410.7
2. REVENUES	
2.1 Payment in Lieu of Taxes	28.4
2.2 Unconditional Grants	503.3
2.3 Specific Grants - Operating	75.1
2.4 Specific Grants - Capital	1,728.1
2.5 Total User Fees and Service Charges	1,618.7
2.6 Licenses, Permits, Rents etc.	133.9
2.7 Fines and Penalties	138.5
2.8 Investment Income	88.6
2.9 Gain/Loss on sale of land & Capital Assets	(196.0)
2.10 Gaming and Casino Revenues	3,220.3
2.11 Other: Other revenue	332.4
2.12 Supplementary Taxes	44.0
2.13 BIA Revenues	27.2
2.14 (Surplus) / Deficit	(4,824.2)
Total Revenues	2,918.3
NET EXPENDITURES	6,492.4
3. PROPERTY TAXATION	6,492.4

Table 4-1 con't
Township of Cavan Monaghan – Veltri Group Developments
Summary of Consolidated Expenditures, Revenues, and Tax Rates
2016 (F.I.R. Data)
('000's \$)

Tax Classes	General Levy		
	Market Assessment	Tax Ratio	Weighted Assessment
4 CALCULATION OF TAX RATES			
<u>Weighted Assessment (000's)</u>			
4.1 Residential Assessment (RT)	909,734.0	1.0000	909,734.0
4.2 Multi-Residential Assessment (MT)	3,018.0	1.7802	5,372.6
4.3 Commercial Assessment (CT, CU, CX, CJ, XT)	81,439.7	1.0986	89,469.6
4.4 Industrial Assessment (IT, IH, IU, IX, JT)	6,636.7	1.5432	10,241.8
4.5 Pipeline Assessment (PT)	6,346.0	0.9386	5,956.4
4.6 Farmland and Managed Forest (FT, TT)	116,017.8	0.2500	29,004.5
4.7 Total Weighted Assessment (000's)	1,123,192.2		1,049,778.8
4.8 2016 Residential Tax Rate (RT)			0.598775%
4.9 2016 Multi-Residential Tax Rate (MT)			1.065940%
4.10 2016 Commercial Full Occupied Tax Rate (CT, XT)			0.924030%
4.11 2016 Commercial Excess and Vacant Land Tax Rate (CU, CX, CJ)			0.460470%
4.12 2016 Industrial Full Occupied Tax Rate (IT, IH, JT)			0.924030%
4.13 2016 Industrial Excess and Vacant Land Tax Rate (IU, IX)			0.600619%
4.14 2016 Pipeline Tax Rate (PT)			0.562010%
4.15 2016 Farmland and Managed Forest Tax Rate (FT, TT)			0.149694%

Source: Township of Cavan Monaghan 2016 Financial Information Return

Table 4-2
Township of Cavan Monaghan – Veltri Group Developments
Summary of Net Operating Expenditures for 2016

Category	Total Gross Expenditures	Interest on Long Term Debt	External Transfers	Amortization	Net Operating Expenditures
1.1 General Government	1,182,694	-	-	63,116	1,119,578
1.2 Fire	1,045,704	-	-	110,173	935,531
1.3 Police	1,236,475	-	-	-	1,236,475
1.4 Conservation Authority	185,535	-	178,115	-	7,420
1.5 Protective Inspection and Control	32,203	-	-	-	32,203
1.6 Building Permit and Inspection Services	180,154	-	-	-	180,154
1.7 Emergency Measures	6,064	-	-	-	6,064
1.8 Other: Truck	530	-	-	530	-
1.9 Roadways & Winter Control	2,347,346	-	-	877,447	1,469,899
1.10 Parking	739	-	-	739	-
1.11 Street Lighting	31,382	-	-	6,951	24,431
1.12 Wastewater Collection/Conveyance	70,641	-	-	33,177	37,464
1.13 Wastewater Treatment & Disposal	712,682	105,118	-	227,864	379,700
1.14 Urban Storm Sewer System	28	-	-	-	28
1.15 Rural Storm Sewer System	54,299	-	-	54,299	-
1.16 Water Treatment	183,898	-	-	43,015	140,883
1.17 Water Distribution/Transmission	369,334	-	-	270,927	98,407
1.18 Solid Waste Collection	61,523	-	-	-	61,523
1.19 Solid Waste Disposal	133,852	-	-	1,043	132,809
1.20 Waste Diversion	5,432	-	-	-	5,432
1.21 Other: Risk management	18,229	-	-	-	18,229
1.22 Parks	266,387	-	-	11,274	255,113
1.23 Recreation Facilities	595,480	-	-	89,703	505,777
1.24 Libraries	380,578	-	-	79,489	301,089
1.25 Other: Recreation and BIA	7,302	-	-	7,302	-
1.26 Planning and Zoning	167,582	-	-	-	167,582
1.27 Commercial and Industrial	133,831	-	-	-	133,831
1.28 Other: Truck	821	-	-	821	-
TOTAL	9,410,725	105,118	178,115	1,877,870	7,249,622

Source: Township of Cavan Monaghan 2016 Financial Information Return

Table 4-3
Township of Cavan Monaghan – Veltri Group Developments
Average Cost per Capita and Employee
(2016 \$)

Category	Total Net Operating Expenditure	Residential Share		Cost Per Capita	Non-Residential Share		Cost Per Employee
		%	\$		%	\$	
1. Expenditures							
1.1 General Government	1,119,578	80%	899,186	101.84	20%	220,392	101.84
1.2 Fire	935,531	80%	751,369	85.10	20%	184,162	85.10
1.3 Police	1,236,475	80%	993,072	112.48	20%	243,403	112.48
1.4 Conservation Authority	7,420	80%	5,959	0.67	20%	1,461	0.67
1.5 Protective Inspection and Control	32,203	80%	25,864	2.93	20%	6,339	2.93
1.6 Building Permit and Inspection Services	180,154	80%	144,690	16.39	20%	35,464	16.39
1.7 Emergency Measures	6,064	80%	4,870	0.55	20%	1,194	0.55
1.8 Other: Truck	0	80%	0	0.00	20%	0	0.00
1.9 Roadways & Winter Control	1,469,899	80%	1,180,546	133.71	20%	289,353	133.71
1.10 Parking	0	80%	0	0.00	20%	0	0.00
1.11 Street Lighting	24,431	80%	19,622	2.22	20%	4,809	2.22
1.14 Urban Storm Sewer System	28	80%	22	0.00	20%	6	0.00
1.15 Rural Storm Sewer System	0	80%	0	0.00	20%	0	0.00
1.18 Solid Waste Collection	61,523	95%	58,447	6.62	5%	3,076	1.42
1.19 Solid Waste Disposal	132,809	80%	106,665	12.08	20%	26,144	12.08
1.20 Waste Diversion	5,432	95%	5,160	0.58	5%	272	0.13
1.21 Other: Risk management	18,229	80%	14,641	1.66	20%	3,588	1.66
1.22 Parks	255,113	95%	242,357	27.45	5%	12,756	5.89
1.23 Recreation Facilities	505,777	95%	480,488	54.42	5%	25,289	11.69
1.24 Libraries	301,089	95%	286,035	32.40	5%	15,054	6.96
1.25 Other: Recreation and BIA	0	0%	0	0.00	100%	0	0.00
1.26 Planning and Zoning	167,582	80%	134,593	15.24	20%	32,989	15.24
1.27 Commercial and Industrial	133,831	0%	0	0.00	100%	133,831	61.84
1.28 Other: Truck	0	80%	0	0.00	20%	0	0.00
Subtotal	6,593,168		5,353,587	606.34		1,239,581	572.80
1.12 Wastewater Collection/Conveyance ¹	37,464			62.44			62.44
1.13 Wastewater Treatment & Disposal ¹	379,700			632.83			632.83
1.16 Water Treatment ¹	140,883			229.45			229.45
1.17 Water Distribution/Transmission ¹	98,407			160.27			160.27
Subtotal	656,454			1,085.00			1,085.00
TOTAL	7,249,622			1,691.34			1,657.80

2016 Population Estimate 8,829 80%
2016 Employment Estimate 2,164 20%

¹ Water and wastewater calculated on a per customer basis

2016 Water Customers 614
2016 Wastewater Customers 600

Table 4-4 a
Township of Cavan Monaghan – Veltri Group Developments
Operating Expenditures – Growth Sensitivity Analysis (Tax-supported)
(2016 \$)

Expenditure Category		RESIDENTIAL			NON-RESIDENTIAL		
		Net Expenditure per Capita	Growth Share %	Net Expenditure Recast	Net Expenditure per Employee	Growth Share %	Net Expenditure Recast
1.1	General Government	101.84	25%	25.46	101.84	25%	25.46
1.2	Protection to Person and Property						
1.2.1	Fire	85.10	100%	85.10	85.10	100%	85.10
1.2.2	Police	112.48	100%	112.48	112.48	100%	112.48
1.2.3	Conservation Authority	0.67	100%	0.67	0.67	100%	0.67
1.2.4	Protective Inspection and Control	2.93	100%	2.93	2.93	100%	2.93
1.2.5	Building Permit and Inspection Services	16.39	100%	16.39	16.39	100%	16.39
1.2.6	Emergency Measures	0.55	100%	0.55	0.55	100%	0.55
1.2.7	Other: Truck	-	0%	-	-	0%	-
1.3	Transportation Services						
1.3.1	Roadways & Winter Control	133.71	75%	100.28	133.71	75%	100.28
1.3.2	Parking	-	0%	-	-	0%	-
1.3.3	Street Lighting	2.22	75%	1.67	2.22	75%	1.67
1.4	Environmental Services						
1.4.1	Urban Storm Sewer System	-	0%	-	-	0%	-
1.4.2	Rural Storm Sewer System	-	0%	-	-	0%	-
1.4.3	Solid Waste Collection	6.62	100%	6.62	1.42	100%	1.42
1.4.4	Solid Waste Disposal	12.08	100%	12.08	12.08	100%	12.08
1.4.5	Waste Diversion	0.58	100%	0.58	0.13	100%	0.13
1.4.6	Other: Risk management	1.66	100%	1.66	1.66	100%	1.66
1.5	Recreation and Cultural Services						
1.5.1	Parks	27.45	75%	20.59	5.89	75%	4.42
1.5.2	Recreation Facilities	54.42	100%	54.42	11.69	100%	11.69
1.5.3	Libraries	32.40	100%	32.40	6.96	100%	6.96
1.5.4	Other: Recreation and BIA	-	0%	-	-	0%	-
1.6	Planning and Development						
1.6.1	Planning and Zoning	15.24	100%	15.24	15.24	100%	15.24
1.6.2	Commercial and Industrial	-	0%	-	61.84	100%	61.84
1.6.3	Other: Truck	-	0%	-	-	0%	-
TOTAL		606.34		489.12	572.80		460.97

Source: Township of Cavan Monaghan 2016 Financial Information Return

Table 4-4 b
Township of Cavan Monaghan – Veltri Group Developments
Operating Expenditures – Growth Sensitivity Analysis (Rate-supported)
(2016 \$)

Expenditure Category	RESIDENTIAL		
	Net Expenditure per Customer	Growth Share %	Net Expenditure Recast
1.7 Water and Wastewater			
1.7.1 Wastewater Collection/Conveyance	62.44	100%	62.44
1.7.2 Wastewater Treatment & Disposal	632.83	100%	632.83
1.7.3 Water Treatment	229.45	100%	229.45
1.7.4 Water Distribution/Transmission	160.27	100%	160.28
TOTAL	1,085.00		1,085.00

NON-RESIDENTIAL		
Net Expenditure per Customer	Growth Share %	Net Expenditure Recast
62.44	100%	62.44
632.83	100%	632.83
229.45	100%	229.45
160.27	100%	160.28
1,085.00		1,085.00

The “Growth Share %” column denotes a particular percentage factor in each case. This factor reflects any variation from the current overall average per household expenditure level, which is called for in dealing with a development increment. For instance, if the average existing expenditure for a service is \$100 per household, economies of scale or other efficiencies, may indicate that service costs for the growth increment alone are likely to be lower than average, say 90% (or \$90 per capita), while being unaltered for the base population. This determination has been based on analysis of the municipality’s budget, discussions with Township staff, other relevant studies prepared as part of this process, facility configuration, practice elsewhere, and the consultant’s experience. The provisions made are considered to be adequate with respect to the proposed development and existing service capacity in the Township.

These percentage attributions are used to compute average incremental operating costs per household and per employee, which is reflected in the “Net Expenditure” column. The per household and employee expenditure averages are utilized, subsequently, to estimate the incremental expenditure requirement generated by growth.

Based on the analysis provided in Table 4-4, the forecast of annual expenditures has been undertaken. Table 4-5 provides for the per household and per employee amount multiplied by the assumed growth take-up as provided in Table 2-2. The total line provides for the product of this calculation.

Table 4-5 a
Township of Cavan Monaghan – Veltri Group Developments
Operating Expenditure Summary (Tax-supported)

Category	Cost Per Capita	Incremental Expenditures (2016 \$)			
		Nina Court	Centre Street	Turner Street	Total
1. Expenditures					
1.1 General Government	25.46	2,597	2,928	6,925	12,450
1.2 Fire	85.10	8,680	9,787	23,147	41,614
1.3 Police	112.48	11,473	12,935	30,595	55,003
1.4 Conservation Authority	0.67	68	77	182	328
1.5 Protective Inspection and Control	2.93	299	337	797	1,433
1.6 Building Permit and Inspection Services	16.39	1,672	1,885	4,458	8,015
1.7 Emergency Measures	0.55	56	63	150	269
1.8 Other: Truck	-	-	-	-	-
1.9 Roadways & Winter Control	100.28	10,229	11,532	27,276	49,037
1.10 Parking	-	-	-	-	-
1.11 Street Lighting	1.67	170	192	454	817
1.14 Urban Storm Sewer System	-	-	-	-	-
1.15 Rural Storm Sewer System	-	-	-	-	-
1.18 Solid Waste Collection	6.62	675	761	1,801	3,237
1.19 Solid Waste Disposal	12.08	1,232	1,389	3,286	5,907
1.20 Waste Diversion	0.58	59	67	158	284
1.21 Other: Risk management	1.66	169	191	452	812
1.22 Parks	20.59	2,100	2,368	5,600	10,069
1.23 Recreation Facilities	54.42	5,551	6,258	14,802	26,611
1.24 Libraries	32.40	3,305	3,726	8,813	15,844
1.25 Other: Recreation and BIA	-	-	-	-	-
1.26 Planning and Zoning	15.24	1,554	1,753	4,145	7,452
1.27 Commercial and Industrial	-	-	-	-	-
1.28 Other: Truck	-	-	-	-	-
Total	489.12	49,890	56,249	133,041	239,180

Table 4-5 b
Township of Cavan Monaghan – Veltri Group Developments
Operating Expenditure Summary (Rate-supported)

Category	Cost Per Customer	Incremental Expenditures (2016 \$)			
		Nina Court	Centre Street	Turner Street	Total
1. Expenditures					
1.12 Wastewater Collection/Conveyance	62.44	1,998	3,184	5,307	10,490
1.13 Wastewater Treatment & Disposal	632.83	20,251	32,274	53,791	106,315
1.16 Water Treatment	229.45	7,342	11,702	19,503	38,548
1.17 Water Distribution/Transmission	160.28	5,129	8,174	13,624	26,927
Total	1,085.00	34,720	55,335	92,225	182,280

4.3 Operating Revenue Implications

Table 4-6 sets out the 2016 non-tax revenues for the Township as outlined in Table 4-1. The table distinguishes the revenues by service specific revenues in section 2.1 (defined as being directly related to individual programs) and those being of a general nature (section 2.2).

Table 4-6
Township of Cavan Monaghan – Veltri Group Developments
Operating Revenue Summary

Category	NON-TAX OPERATING REVENUES (2016 \$)							
	Ontario Conditional Grants	Canada Conditional Grants	Other Municipalities	User Fees and Service Charges	Ontario Grants - Tangible Capital Assets	Canada Grants - Tangible Capital Assets	User Fees, Service Charges, and Grants	Total Revenue - FIR 2016
2. Revenues								
2.1 <u>Service Specific Non-Tax Revenues</u>								
General Government	6,880	-	-	47,659	-	-	54,539	54,539
Fire	-	-	-	102,561	-	-	102,561	102,561
Protective Inspection and Control	6,924	-	-	-	-	-	6,924	6,924
Building Permit and Inspection Services	-	-	-	154,006	-	-	154,006	154,006
Roadways & Winter Control	25,000	-	-	9,225	-	-	34,225	34,225
Wastewater Collection/Conveyance	-	-	-	590,402	-	-	590,402	590,402
Wastewater Treatment & Disposal	-	-	-	16,529	692,642	692,642	16,529	1,401,813
Water Distribution/Transmission	2	-	-	393,662	-	-	393,664	393,664
Solid Waste Collection	-	-	-	25,207	-	-	25,207	25,207
Solid Waste Disposal	-	-	-	36,734	-	-	36,734	36,734
Waste Diversion	-	-	-	4,848	-	-	4,848	4,848
Parks	-	-	-	10,837	-	-	10,837	10,837
Recreation Facilities	-	-	-	138,316	-	-	138,316	138,316
Libraries	34,767	-	-	19,560	-	2,838	54,327	57,165
Planning and Zoning	-	-	-	57,289	-	-	57,289	57,289
Commercial and Industrial	1,500	-	-	11,860	-	-	13,360	13,360
2.2 <u>Other Non-Tax Revenues</u>								
Payment in Lieu of Taxes								28,395
Unconditional Grants								503,300
Specific Grants - Operating								75,073
Specific Grants - Capital								1,728,122
Total User Fees and Service Charges								1,618,695
Licenses, Permits, Rents etc.								133,901
Fines and Penalties								138,519
Investment Income								88,558
Gain/Loss on sale of land & Capital Assets								(195,960)
Gaming and Casino Revenues								3,220,329
Other: Other revenue								332,400
Supplementary Taxes								44,046
BIA Revenues								27,182
(Surplus) / Deficit								(4,824,239)
Total	75,073	-	-	1,618,695	692,642	695,480	1,693,768	6,000,211

Source: Township of Cavan Monaghan 2016 Financial Information Return

Table 4-7 assesses the 2016 non-tax revenues as to those which may be directly affected by growth. Generally, any grants and subsidies have been eliminated and the residual amounts are assessed as to their applicability to growth. The costs are then allocated between households and employees to provide a per household and per employee revenue.

Table 4-8 assesses the estimated proportionate share of growth in a similar manner as provided in Table 4-5. Table 4-9 then determines the forecast non-tax revenue to be generated annually based on the growth at buildout provided in Table 2-2.

Table 4-7
Township of Cavan Monaghan – Veltri Group Developments
Non-Tax Operating Revenue Summary
Average Revenue Per Capita and Employee and Per Customer
(2016 \$)

CATEGORY	Total Net Operating Revenue and Grants	Residential Share		Revenue Per Capita	Non-Residential Share		Revenue Per Employee ²
		%	\$		%	\$	
2. Revenues							
2.1 <u>Service Specific Non-Tax Revenues</u>							
General Government	54,539	80%	43,803	4.96	20%	10,736	4.96
Fire	102,561	80%	82,372	9.33	20%	20,189	9.33
Protective Inspection and Control	6,924	80%	5,561	0.63	20%	1,363	0.63
Building Permit and Inspection Services	154,006	80%	123,690	14.01	20%	30,317	14.01
Roadways & Winter Control	34,225	80%	27,488	3.11	20%	6,737	3.11
Solid Waste Collection	25,207	95%	23,947	2.71	5%	1,260	0.58
Solid Waste Disposal	36,734	80%	29,503	3.34	20%	7,231	3.34
Waste Diversion	4,848	95%	4,606	0.52	5%	242	0.11
Parks	10,837	95%	10,295	1.17	5%	542	0.25
Recreation Facilities	138,316	95%	131,400	14.88	5%	6,916	3.20
Libraries	54,327	95%	51,611	5.85	5%	2,716	1.26
Planning and Zoning	57,289	80%	46,012	5.21	20%	11,278	5.21
Commercial and Industrial	13,360	0%	-	-	100%	13,360	6.17
2.2 <u>Other Non-Tax Revenues</u>							
Payment in Lieu of Taxes	28,395	80%	22,805	2.58	20%	5,590	2.58
Unconditional Grants	503,300	80%	404,224	45.78	20%	99,076	45.78
Specific Grants - Operating ¹	75,073	n/a	-	-	n/a	-	-
Specific Grants - Capital ²	1,728,122	n/a	-	-	n/a	-	-
Total User Fees and Service Charges	1,618,695	80%	1,300,051	147.25	20%	318,644	147.25
Licenses, Permits, Rents etc.	133,901	80%	107,542	12.18	20%	26,359	12.18
Fines and Penalties	138,519	80%	111,251	12.60	20%	27,268	12.60
Investment Income	88,558	80%	71,125	8.06	20%	17,433	8.06
Gain/Loss on sale of land & Capital Assets	(195,960)	80%	(157,385)	(17.83)	20%	(38,575)	(17.83)
Gaming and Casino Revenues	3,220,329	80%	2,586,399	292.94	20%	633,930	292.94
Other: Other revenue	332,400	80%	266,966	30.24	20%	65,434	30.24
Supplementary Taxes	44,046	80%	35,375	4.01	20%	8,671	4.01
BIA Revenues	27,182	80%	21,831	2.47	20%	5,351	2.47
(Surplus) / Deficit	(4,824,239)	80%	(3,874,575)	(438.85)	20%	(949,664)	(438.85)
Subtotal	3,611,494		1,475,896	167.15		332,403	153.59
Water and Wastewater							
Wastewater Collection/Conveyance ³	590,402			984.00			984.00
Wastewater Treatment & Disposal ³	16,529			27.55			27.55
Water Distribution/Transmission ³	393,664			641.15			641.15
Subtotal	1,000,595			1,652.70			1,652.70
Total	4,612,089			1,819.85			1,806.29

2016 Population Estimate

8,829

2016 Water Customers

614

2016 Employment Estimate

2,164

2016 Wastewater Customers

600

¹ Specific operating grants have been included in section 2.1 above² Specific capital grants have been netted from the operating analysis³ water and wastewater calculated on a per customer basis

Table 4-8 a
Township of Cavan Monaghan – Veltri Group Developments
Non-tax Operating Revenues – Growth Sensitivity Analysis (Tax-supported)
(2016 \$)

REVENUE CATEGORY	RESIDENTIAL			NON-RESIDENTIAL		
	Net Revenue per Capita	Growth Share %	Net Revenue Recast	Net Revenue per Employee	Growth Share %	Net Revenue Recast
2.1 Service Specific Non-Tax Revenues						
General Government	4.96	25%	1.24	4.96	25%	1.24
Fire	9.33	100%	9.33	9.33	100%	9.33
Protective Inspection and Control	0.63	100%	0.63	0.63	100%	0.63
Building Permit and Inspection Services	14.01	100%	14.01	14.01	100%	14.01
Roadways & Winter Control	3.11	75%	2.33	3.11	75%	2.33
Solid Waste Collection	2.71	100%	2.71	0.58	0%	-
Solid Waste Disposal	3.34	100%	3.34	3.34	100%	3.34
Waste Diversion	0.52	100%	0.52	0.11	100%	0.11
Parks	1.17	75%	0.88	0.25	75%	0.19
Recreation Facilities	14.88	100%	14.88	3.20	100%	3.20
Libraries	5.85	100%	5.85	1.26	100%	1.26
Planning and Zoning	5.21	100%	5.21	5.21	100%	5.21
Commercial and Industrial	-	100%	-	6.17	100%	6.17
Sub-total	65.72		60.93	52.16		47.02
2.2 Other Non-Tax Revenues						
Payment in Lieu of Taxes	2.58	n/a	-	2.58	n/a	-
Unconditional Grants	45.78	n/a	-	45.78	n/a	-
Specific Grants - Operating ¹	-	n/a	-	-	n/a	-
Specific Grants - Capital ²	-	n/a	-	-	n/a	-
Total User Fees and Service Charges	147.25	n/a	-	147.25	n/a	-
Licenses, Permits, Rents etc.	12.18	100%	12.18	12.18	100%	12.18
Fines and Penalties	12.60	100%	12.60	12.60	100%	12.60
Investment Income	8.06	100%	8.06	8.06	100%	8.06
Gain/Loss on sale of land & Capital Assets	(17.83)	0%	-	(17.83)	0%	-
Gaming and Casino Revenues	292.94	0%	-	292.94	0%	-
Other: Other revenue	30.24	50%	15.12	30.24	50%	15.12
Supplementary Taxes	4.01	n/a	-	4.01	n/a	-
BIA Revenues	2.47	n/a	-	2.47	n/a	-
(Surplus) / Deficit	(438.85)	n/a	-	(438.85)	n/a	-
Sub-total	101.43		47.96	101.43		47.96
Total	167.15		108.89	153.59		94.98

Source: Township of Cavan Monaghan 2016 Financial Information Return

¹ Specific grants and user fees have been included in section 2.1 above

² Specific capital grants have been netted from the operating analysis

Table 4-8 b
Township of Cavan Monaghan – Veltri Group Developments
Non-tax Operating Revenues – Growth Sensitivity Analysis (Rate-supported)
(2016 \$)

REVENUE CATEGORY	RESIDENTIAL			NON-RESIDENTIAL		
	Net Revenue per Customer	Growth Share %	Net Revenue Recast	Net Revenue per Customer	Growth Share %	Net Revenue Recast
Water and Wastewater						
Wastewater Collection/Conveyance	984.00	100%	984.00	984.00	100%	984.00
Wastewater Treatment & Disposal	27.55	100%	27.55	27.55	100%	27.55
Water Distribution/Transmission	641.15	100%	641.15	641.15	100%	641.15
Total	1,652.70		1,652.70	1,652.70		1,652.70

Table 4-9 a
Township of Cavan Monaghan – Veltri Group Developments
Non-Tax Operating Revenue Summary (Tax-supported)

Category	Revenue Per Capita	Incremental Expenditures (2016 \$)			
		Nina Court	Centre Street	Turner Street	Total
2. Revenues					
2.1 Service Specific Non-Tax Revenues					
General Government	1.24	126	143	337	606
Fire	9.33	952	1,073	2,538	4,562
Protective Inspection and Control	0.63	64	72	171	308
Building Permit and Inspection Services	14.01	1,429	1,611	3,811	6,851
Roadways & Winter Control	2.33	238	268	634	1,139
Solid Waste Collection	2.71	276	312	737	1,325
Solid Waste Disposal	3.34	341	384	908	1,633
Waste Diversion	0.52	53	60	141	254
Parks	0.88	90	101	239	430
Recreation Facilities	14.88	1,518	1,711	4,047	7,276
Libraries	5.85	597	673	1,591	2,861
Planning and Zoning	5.21	531	599	1,417	2,548
Commercial and Industrial	-	-	-	-	-
2.2 Other Non-Tax Revenues					
Payment in Lieu of Taxes	-	-	-	-	-
Unconditional Grants	-	-	-	-	-
Specific Grants - Operating	-	-	-	-	-
Specific Grants - Capital	-	-	-	-	-
Total User Fees and Service Charges	-	-	-	-	-
Licenses, Permits, Rents etc.	12.18	1,242	1,401	3,313	5,956
Fines and Penalties	12.60	1,285	1,449	3,427	6,161
Investment Income	8.06	822	927	2,192	3,941
Gain/Loss on sale of land & Capital Assets	-	-	-	-	-
Gaming and Casino Revenues	-	-	-	-	-
Other: Other revenue	15.12	1,542	1,739	4,113	7,394
Supplementary Taxes	-	-	-	-	-
BIA Revenues	-	-	-	-	-
(Surplus) / Deficit	-	-	-	-	-
Total	108.89	11,107	12,522	29,618	53,247

Table 4-9 b
Township of Cavan Monaghan – Veltri Group Developments
Non-Tax Operating Revenue Summary (Rate-supported)

CATEGORY	Revenue Per Customer	Incremental Expenditures (2016 \$)			
		Nina Court	Centre Street	Turner Street	Total
2 Water and Wastewater Revenues					
Wastewater Collection/Conveyance	984.00	31,488	50,184	83,640	165,312
Wastewater Treatment & Disposal	27.55	882	1,405	2,342	4,628
Water Distribution/Transmission	641.15	20,517	32,699	54,498	107,713
Total	1,652.70	52,886	84,288	140,480	277,654

4.4 Taxation Revenue

Based on the Assessment Increment calculations provided in Table 2-3, a forecast of the taxation revenue to be generated at buildout was undertaken using the 2016 tax rates. Table 4-10 provides for this calculation at buildout. In undertaking this calculation, it is recognized that the properties are currently assessed, and the existing tax revenue has been netted from the calculations to provide the net incremental tax revenue.

Table 4-10
Township of Cavan Monaghan – Veltri Group Developments
Annual Property Tax Revenue

Property Tax Class	Non-Cumulative Property Tax Revenue (2016\$)			
	Nina Court	Centre Street	Turner Street	Total
1. Property Tax¹				
Residential Growth				
<i>Residential Assessment (RT)</i>	9,234,000	11,772,000	26,724,000	47,730,000
Property Tax Revenue 0.6415%	59,240	75,523	171,446	306,209
Total Residential Property Tax Revenue	59,240	75,523	171,446	306,209
<i>Less: Existing Tax Revenue</i>	789	1,809	994	3,592
TOTAL PROPERTY TAX REVENUE	58,451	73,714	170,452	302,617

¹ Tax Rates (2016):	General Tax Rate
2016 Residential Tax Rate (RT)	0.6415%

5. Lifecycle Analysis

Tables 5-1 through 5-3 provide for an analysis on the anticipated annual lifecycle costs associated with the direct (internal) capital works identified for the Nina Court, Centre Street, and Turner Street developments (discussed in Chapter 3). Some of the works (i.e. roads, sidewalks, etc.) are a direct developer responsibility as per the Township's Local Service Policy, however once these works are assumed, the Township will incur lifecycle costs associated with the future replacement of the works at the end of their useful life. This replacement of capital is often referred to as asset management or lifecycle cost. The method selected in this analysis to assess future asset replacement 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. These costs are included in the net impact calculations in Chapter 6.

Table 5-4 through 5-6 provide for an analysis of the indirect capital costs identified in the Township's D.C. study for each development, respectively. As indicated in Chapter 3, the Township's D.C. background study identified a forecasted growth of 2,460 population in the Millbrook area and 2,957 in the Township over their buildout forecast. As the proposed developments include provision for a total additional population of 489 (based on the P.P.U.s provided in the D.C. study), this amounts to 19.88% of the development in the Millbrook area and 16.54% of the development anticipated in the Township. Tables 5-4 through 5-6 calculate the share of the annual lifecycle contributions identified in the D.C. by service for each development area. These costs are included in the net impact calculations in Chapter 6.

Table 5-1 a
Township of Cavan Monaghan – Nina Court
Annual Asset Replacement Costing Forecast – New Infrastructure (Tax-supported)

Service	Unit Measure	Unit Cost 2016 \$	Capital Cost	% of Cost	Asset Useful Life (years)	Lifecycle Factor	Annual Contribution Total
Transportation							
Local Roads, Streetlights and Inters. Improv. (2 lane)	0.17	714,000	124,600				
- Base			90,958	73%	75	0.0059	2,400
- Surface			33,642	27%	25	0.0312	1,700
Block 27 Emergency Access (3m walkway)	0.28	107,000	30,000				
- Base			21,900	73%	75	0.0059	600
- Surface			8,100	27%	25	0.0312	400
Sidewalks (assumed one side in development plus South side of Nina Court existing R.O.W. to Century Boulevard)	0.23	256,900	58,400	100%	25	0.0312	3,000
Drainage/Stormwater							
Storm Sewers (km)	0.17	263,600	46,000	100%	80	0.0052	1,200
Storm Pond (ha)*	0.36	626,700	223,700	100%	80	0.0052	5,600
Total			637,300				14,900

Investment Rate	2%
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*Storm pond cost estimated based on review of costs in other municipalities.

Replacement costs based on costs used for fiscal impact analysis of recent Millbrook developments, inflated at 2%

Table 5-1 b
Township of Cavan Monaghan – Nina Court
Annual Asset Replacement Costing Forecast – New Infrastructure (Rate-supported)

Service	Unit Measure	Unit Cost 2016 \$	Capital Cost	% of Cost	Asset Useful Life (years)	Lifecycle Factor	Annual Contribution Total
<u>Water</u>							
Water Mains - Local (km)	0.17	225,900	39,400	100%	100	0.0032	900
<u>Wastewater</u>							
Wastewater Mains - Local (km)	0.17	263,600	46,000	100%	100	0.0032	1,100
Total			85,400				2,000

Investment Rate		2%
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Replacement costs based on costs used for fiscal impact analysis of recent Millbrook developments, inflated at 2%

The above only includes localized mains. Major infrastructure lifecycle costs are included in the Broader Lifecycle Impact in Table 5-2

Table 5-2 a
Township of Cavan Monaghan – Centre Street
Annual Asset Replacement Costing Forecast – New Infrastructure (Tax-supported)

Service	Unit Measure	Unit Cost 2016 \$	Capital Cost	% of Cost	Asset Useful Life (years)	Lifecycle Factor	Annual Contribution Total
Transportation							
Local Roads, Streetlights and Inters. Improv. (2 lane)	0.24	714,000	169,200				
- Base			123,516	73%	75	0.0059	3,200
- Surface			45,684	27%	25	0.0312	2,300
Sidewalks (assumed one side)	0.24	256,900	60,900	100%	25	0.0312	3,100
Drainage/Stormwater							
Storm Sewers (km)	0.24	263,600	62,500	100%	80	0.0052	1,600
Storm Pond (ha)*	0.23	626,700	144,800	100%	80	0.0052	3,600
Total			606,600				13,800

Investment Rate	2%
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Replacement costs based on costs used for fiscal impact analysis of recent Millbrook developments, inflated at 2%

The above only includes localized mains. Major infrastructure lifecycle costs are included in the Broader Lifecycle Impact in Table 5-2

Table 5-2 b
Township of Cavan Monaghan – Centre Street
Annual Asset Replacement Costing Forecast – New Infrastructure (Rate-supported)

Service	Unit Measure	Unit Cost 2016 \$	Capital Cost	% of Cost	Asset Useful Life (years)	Lifecycle Factor	Annual Contribution Total
<u>Water</u>							
Water Mains - Local (km)	0.24	225,900	53,500	100%	100	0.0032	1,200
<u>Wastewater</u>							
Wastewater Mains - Local (km)	0.24	263,600	62,500	100%	100	0.0032	1,500
Total			116,000				2,700

Investment Rate	2%
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Replacement costs based on costs used for fiscal impact analysis of adjacent development, inflated at 2%

The above only includes localized mains. Major infrastructure lifecycle costs are included in the Broader Lifecycle Impact in Table 5-2

Table 5-3 a
Township of Cavan Monaghan – Turner Street
Annual Asset Replacement Costing Forecast – New Infrastructure (Tax-supported)

Service	Unit Measure	Unit Cost 2016 \$	Capital Cost	% of Cost	Asset Useful Life (years)	Lifecycle Factor	Annual Contribution Total
Transportation							
Local Roads, Streetlights and Inters. Improv. (2 lane)	0.61	714,000	433,400				
- Base			316,382	73%	75	0.0059	8,200
- Surface			117,018	27%	25	0.0312	6,000
Sidewalks (assumed one side and extension to King St.)	0.77	256,900	197,000	100%	25	0.0312	10,100
Drainage/Stormwater							
Storm Sewers (km) (including extension to King St.)	0.77	263,600	202,200	100%	80	0.0052	5,100
Storm Pond (ha)*	0.40	626,700	252,600	100%	80	0.0052	6,400
Total			1,518,600				35,800

Investment Rate	2%
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Replacement costs based on costs used for fiscal impact analysis of recent Millbrook developments, inflated at 2%

The above only includes localized mains. Major infrastructure lifecycle costs are included in the Broader Lifecycle Impact in Table 5-2

Table 5-3 b
Township of Cavan Monaghan – Turner Street
Annual Asset Replacement Costing Forecast – New Infrastructure (Rate-supported)

Service	Unit Measure	Unit Cost 2016 \$	Capital Cost	% of Cost	Asset Useful Life (years)	Lifecycle Factor	Annual Contribution Total
<u>Water</u>							
Water Mains - Local (km)	0.77	225,900	173,300	100%	100	0.0032	4,000
<u>Wastewater</u>							
Wastewater Mains - Local (km)	0.77	263,600	202,200	100%	100	0.0032	4,700
Total			375,500				8,700

Investment Rate		2%
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Replacement costs based on costs used for fiscal impact analysis of adjacent development, inflated at 2%

The above only includes localized mains. Major infrastructure lifecycle costs are included in the Broader Lifecycle Impact in Table 5-2

Table 5-4
Township of Cavan Monaghan – Nina Court
Indirect Annual Lifecycle Costs

Service	Annual Lifecycle Contribution	Forecast Period	Share of Growth	Proportionate Share of Annual Lifecycle costs for this Development
Millbrook-Specific				
Wastewater Services (Millbrook)	92,700	Urban buildout	4.15%	3,844
Water Services (Millbrook)	22,300	Urban buildout	4.15%	925
Total Millbrook-specific	115,000			4,768
Township-wide				
Roads and Related	183,900	18 Year	3.45%	6,344
Fire Protection Services	33,600	18 Year	3.45%	1,159
Police Services	1,000	18 Year	3.45%	34
Outdoor Recreation Services	31,400	10 Year	3.45%	1,083
Indoor Recreation Services	100,000	10 Year	3.45%	3,449
Library Services	17,300	10 Year	3.45%	597
Administration Studies	-	10 Year	3.45%	-
Total Township-wide Services	367,200			12,666

Table 5-5
Township of Cavan Monaghan – Centre Street
Indirect Annual Lifecycle Costs

Service	Annual Lifecycle Contribution	Forecast Period	Share of Growth	Proportionate Share of Annual Lifecycle costs for this Development
Millbrook-Specific				
Wastewater Services (Millbrook)	92,700	Urban buildout	4.67%	4,334
Water Services (Millbrook)	22,300	Urban buildout	4.67%	1,042
Total Millbrook-specific	115,000			5,376
Township-wide				
Roads and Related	183,900	18 Year	3.89%	7,152
Fire Protection Services	33,600	18 Year	3.89%	1,307
Police Services	1,000	18 Year	3.89%	39
Outdoor Recreation Services	31,400	10 Year	3.89%	1,221
Indoor Recreation Services	100,000	10 Year	3.89%	3,889
Library Services	17,300	10 Year	3.89%	673
Administration Studies	-	10 Year	3.89%	-
Total Township-wide Services	367,200			14,281

Table 5-6
Township of Cavan Monaghan – Turner Street
Indirect Annual Lifecycle Costs

Service	Annual Lifecycle Contribution	Forecast Period	Share of Growth	Proportionate Share of Annual Lifecycle costs for this Development
Millbrook-Specific				
Wastewater Services (Millbrook)	92,700	Urban buildout	11.06%	10,250
Water Services (Millbrook)	22,300	Urban buildout	11.06%	2,466
Total Millbrook-specific	115,000			12,715
Township-wide				
Roads and Related	183,900	18 Year	9.20%	16,916
Fire Protection Services	33,600	18 Year	9.20%	3,091
Police Services	1,000	18 Year	9.20%	92
Outdoor Recreation Services	31,400	10 Year	9.20%	2,888
Indoor Recreation Services	100,000	10 Year	9.20%	9,199
Library Services	17,300	10 Year	9.20%	1,591
Administration Studies	-	10 Year	9.20%	-
Total Township-wide Services	367,200			33,777

6. Net Impact of the Proposed Development on the Township of Cavan Monaghan

Table 6-1 summarizes the foregoing analysis provided in Chapter 4 over a planned forecast period. This table calculates the operating expenditures, including a provision for overall capital spending and non-tax revenues and taxation revenues to provide for the net annual financial position.

Based on the results provided in Table 6-1, each development would provide an overall net positive contribution to the Township on an annual basis.

A deficit of approximately \$8,500 is anticipated for the combined developments for the tax-supported services. A surplus of \$59,000 is anticipated for the combined developments for the rate-supported services.

An overall net-positive position is expected (at buildout of the lands) to be approximately \$50,500 for the combined developments.

Table 6-1
Township of Cavan Monaghan – Veltri Group Developments
Summary and Tax/Rate Impact

Summary and Tax Rate Impact	(2016 \$)	(2016 \$)	(2016 \$)	(2016 \$)
	Nina Court	Centre Street	Turner Street	Total
<u>Tax-supported</u>				
1. <u>Revenues</u>				
1.1 Property Tax				
Residential Growth	58,451	73,714	170,452	302,617
Total Property Tax Revenue	58,451	73,714	170,452	302,617
1.2 Non-Tax				
Residential Growth	11,107	12,522	29,618	53,247
Total Non-Tax Revenue	11,107	12,522	29,618	53,247
1.3 Total Revenue				
Residential Growth	69,558	86,237	200,070	355,864
Total Revenue	69,558	86,237	200,070	355,864
2. <u>Expenditures</u>				
2.1 Operating				
Residential Growth	49,890	56,249	133,041	239,180
Total Operating Expenditures	49,890	56,249	133,041	239,180
2.2 Lifecycle				
Total Internal Lifecycle Expenditures	14,900	13,800	35,800	64,500
Broader City-wide Lifecycle impacts	12,666	14,281	33,777	60,724
Total Lifecycle Expenditures	27,566	28,081	69,577	125,224
Total Expenditures	77,457	84,329	202,618	364,404
3. Surplus (Deficit)	(7,899)	1,907	(2,548)	(8,539)
<u>Rate-supported</u>				
4. <u>Revenues</u>				
4.1 Operating Revenue				
Water Revenue	20,517	32,699	54,498	107,713
Wastewater Revenue	32,370	51,589	85,982	169,940
Total Revenue	52,886	84,288	140,480	277,654
5. <u>Expenditures</u>				
5.1 Operating				
Water Expenditure	12,471	19,876	33,127	65,475
Wastewater Expenditure	22,249	35,459	59,098	116,805
Total Operating Expenditures	34,720	55,335	92,225	182,280
5.2 Lifecycle				
Internal Lifecycle Expenditures	2,000	2,700	8,700	13,400
Broader Indirect Lifecycle impacts	4,768	5,376	12,715	22,860
Total Lifecycle Expenditures	6,768	8,076	21,415	36,260
Total Expenditures	41,488	63,411	113,640	218,540
6. Surplus (Deficit)	11,398	20,877	26,839	59,114
7. Grand Total Surplus (Deficit)	3,499	22,784	24,291	50,574