

**Municipality of North
Middlesex**

**Development Charges
Update Study**

March 23, 2017



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 **Planning for growth**

Contents

	Page
1. Introduction	1-1
1.1 Background.....	1-1
1.2 Existing Policies (Rules)	1-5
1.2.1 Payment in any Particular Case	1-5
1.2.2 Determination of the Amount of the Charge	1-5
1.2.3 Application to Land Redevelopment.....	1-6
1.2.4 Exemptions (full or partial)	1-6
1.2.5 Indexing	1-7
1.2.6 By-law Duration.....	1-7
1.2.7 Timing of D.C. Payments	1-7
1.3 Basis for D.C. By-law Update	1-7
1.4 Summary of the Process.....	1-7
1.5 Policy Recommendations	1-9
2. Changes to the D.C.A. and Items to be Addressed by the Update	2-10
2.1 Area Rating.....	2-10
2.2 Asset Management Plan for New Infrastructure	2-10
2.3 60-Day Circulation of D.C. Background Study	2-11
2.4 Timing of Collection of Development Charges.....	2-11
2.5 Other Changes	2-11
3. Anticipated Development	3-1
4. Updates to the Capital Costing.....	4-1
4.1 Ailsa Craig, Nairn, and Petty Areas	4-1
4.1.1 Water and Roads Servicing Costs	4-1
4.1.2 Sanitary Sewer Servicing Costs	4-3
4.2 Parkhill Area	4-4
4.2.1 Water, Wastewater, Roads, and Stormwater Servicing Costs	4-4
4.3 D.C. By-law Revised Schedule of Charges.....	4-6
4.3.1 Updated D.C. Calculation (2017 \$)	4-6
4.3.2 50% Reduction.....	4-8
5. Recommendations	5-1
Appendix A – County P.P.U.s and Chapter 2 Excerpt from 2013 D.C. Background Study	A-1
Appendix B – Asset Management and Long Term Capital and Operating Cost Examination	B-1
B-1 Asset Management.....	B-2
B-2 Long Term Capital and Operating Cost Examination.....	B-6
Appendix C – Draft Amending Development Charge By-law	C-1

List of Acronyms and Abbreviations

D.C.	Development Charge
D.C.A.	Development Charges Act
F.I.R.	Financial Information Return
G.F.A.	Gross floor area
P.P.U.	Persons per unit
S.D.E.	Single detached equivalent
S.D.U.	Single detached unit
sq.ft.	Square foot

1. Introduction

1.1 Background

The Municipality imposes development charges to recover the increase in needs for service arising from growth. The basis for the calculation of the Municipality's existing development charges is documented in the "Municipality of North Middlesex 2013 Development Charge Study for the Communities of Ailsa Craig, Nairn and Petty and Parkhill", dated January, 2013 which provided the supporting documentation for By-law 8-2013. Map 1-1, 1-2, and 1-3 denote the areas where these charges will be imposed. By-law 8-2013 was adopted by Council on February 20, 2013, with the development charges coming into effect February 21, 2013.

The resultant 2013 development charges applicable to these two areas are summarized as follows:

Table 1-1
2013 Development Charges (Unindexed)

Schedule of Ailsa Craig/Nairn/Petty Area-specific Development Charges

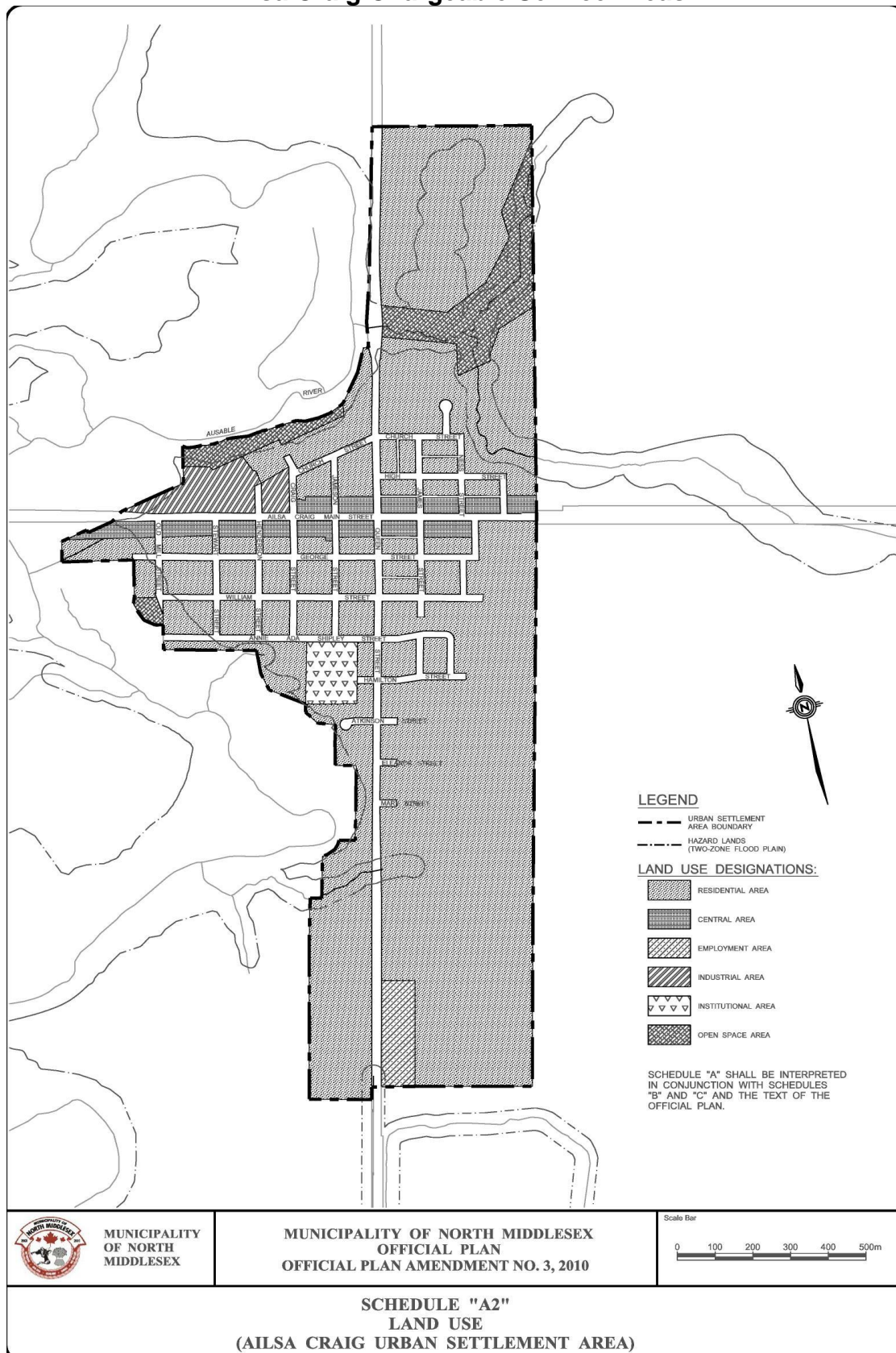
Service	Residential			Non-residential
	Single & Semi-detached Dwelling	Apartments	Other Multiples	(per s.f. of Gross Floor Area)
Roads	1,962	871	1,529	0.27
Water	313	139	244	0.04
Wastewater	8,026	3,564	6,256	1.11
Total	10,301	4,574	8,029	1.42

Schedule of Parkhill Area-specific Development Charges

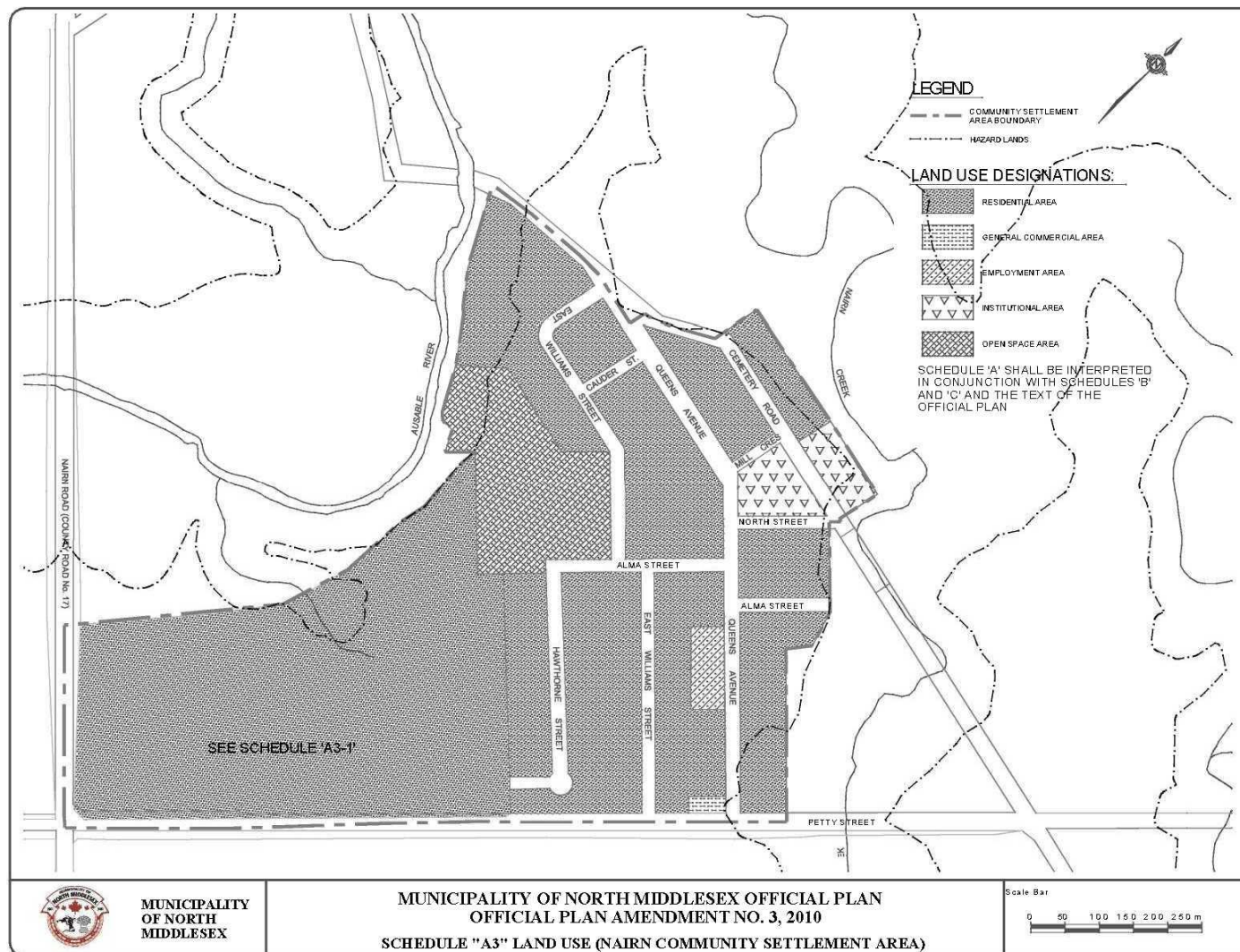
Service	Residential			Non-residential
	Single & Semi-detached Dwelling	Apartments	Other Multiples	(per s.f. of Gross Floor Area)
Roads	1,149	510	896	0.16
Water	912	405	711	0.12
Wastewater	7,530	3,344	5,870	1.04
Storm	903	401	704	0.13
Total	10,494	4,660	8,181	1.45

Subsequent to the passage of By-law 8-2013, the Municipality's development charges have been indexed (in accordance with section 5 of the by-law) annually on the anniversary date of the by-law and are currently 4.5% higher than presented above. The updated calculations reflected herein will be presented in 2013 values (the same values as the 2013 D.C. By-law) and 2017 values to reflect current values.

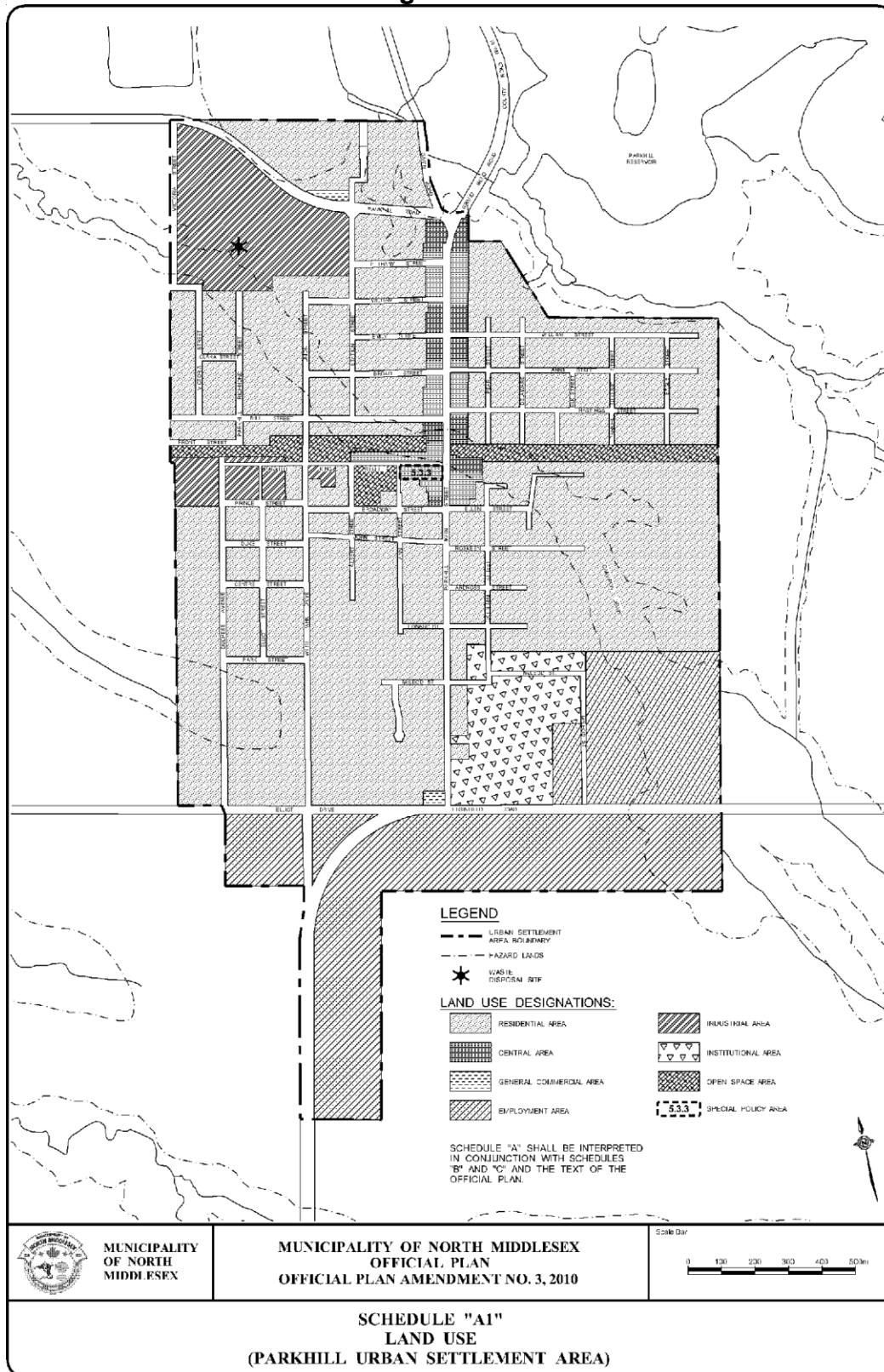
Map 1-1 Ailsa Craig Chargeable Service Areas



**Map 1-2
Nairn and Petty Chargeable Service Areas**



**Map 1-3
Parkhill Chargeable Service Areas**



1.2 Existing Policies (Rules)

The following subsections set out the rules governing the calculation, payment and collection of development charges as provided in By-law 8-2013 in accordance with the *Development Charges Act, 1997* (Act).

1.2.1 Payment in any Particular Case

In accordance with the *Development Charges Act, 1997*, the development charge shall be calculated, payable and collected where the development requires one or more of the following:

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

The charges apply only to development within the areas denoted on Map 1-1, 1-2, and 1-3.

1.2.2 Determination of the Amount of the Charge

The calculation for residential development is generated by dividing the DC-eligible costs by the residential and non-residential ERU's (Equivalent Residential Units), thus providing a "per ERU" (or single detached unit). The cost per unit is then multiplied by percentage relationship other units have relative to single detached to derived the charge for medium and high density building forms. (Appendix A of the January, 2013 report provides for the gross population figures for each forecast period along with the average occupancy by unit type.).

The non-residential development charge has been calculated based on a per square foot of gross floor area basis.

1.2.3 Application to Land Redevelopment

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 five years 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:

- 1) in the case of a residential building or structure, or in the case of a mixed-use building or structure, the residential uses in the mixed-use building or structure, an amount calculated by multiplying the applicable development charge under Subsection 3.10 by the number, according to type, of dwelling units that have been or will be demolished or converted to another principle use; and
- 2) in the case of a non-residential building or structure, 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 3.12, 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.

1.2.4 Exemptions (full or partial)

The following lands are exempt from development charges:

- a) Statutory exemptions
 - i. Industrial additions of up to and including 50% of the existing gross floor area of the building - for industrial additions which exceed 50% of the existing gross floor area, only the portion of the addition in excess of 50% is subject to development charges;
 - ii. Land used for Municipal or Board of Education purposes; and
 - iii. Residential development that results in only the enlargement of an existing dwelling unit, or that results only in the creation of up to two additional

dwelling units where the total gross floor area of the additional unit(s) does not exceed the gross floor area of the existing dwelling unit.

1.2.5 Indexing

The by-law provided for the automatic indexing of the development charges, without amendment, annually, beginning on January 1, 2014 (the anniversary date of the by-law) in accordance with the Statistics Canada Quarterly, Non-Residential Building Construction Price Index (CANSIM Table 327-0043).

1.2.6 By-law Duration

By-law 8-2013 will expire at 12:01 AM on February 21, 2018 unless it is repealed by Council at an earlier date.

1.2.7 Timing of D.C. Payments

Development charges imposed under this By-law are calculated, payable and collected upon issuance of a building permit for the development (section 3.14 of by-law).

Despite Section 3.14, Council from time to time, and at any time, may enter into Agreements providing for all or any part of the development charge to be paid before or after it would otherwise be payable, in accordance with Section 27 of the Act.

1.3 Basis for D.C. By-law Update

This D.C. Update Study provides for an amendment to the Municipality's area-specific development charges by-law. The purpose of the amendment is to provide for updates to the charges contained within the Municipality's 2013 D.C. Background Study and provide a 50% reduction of the calculated charges, as per direction of Council. This amendment is being recommended at this time as an interim charge until the Municipality completes a comprehensive development charge study, later in 2017 to ensure a new by-law is in place prior to the February 20, 2018 expiry date.

Details on the updated capital costs are presented in Chapter 4 of this report. The revised schedule of development charges is presented in the draft amending by-law in Appendix C of this report.

1.4 Summary of the Process

The Public Meeting required under section 12 of the Development Charges Act, 1997, has been scheduled for May 3, 2017. Its purpose is to present the update study to the

public and to solicit public input. The meeting is also being held to answer any questions regarding the study's purpose, methodology and the proposed modifications to the Municipality's development charges.

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

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

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

Figure 1-1
Schedule of Key Development Charge Process Dates
for the Municipality of North Middlesex

1. Data collection, Calculations & Policy Development	December, 2016
2. Meetings with Municipality Staff	December, 2016
3. Notice of Public Meeting	No later than April 11, 2017
4. D.C. Background study update report and proposed amending D.C. by-law available to public (two weeks prior to the Public Meeting and 60 days prior to By-law passage)	March 23, 2017
5. Public meeting of Council	May 3, 2017
6. Council considers adoption of background study and passage of by-law	June 7, 2017
7. Newspaper notice given of by-law passage	By 20 days after passage
8. Last day for by-law appeal	40 days after passage
9. Municipality makes available pamphlet (where by-law not appealed)	By 60 days after in force date

1.5 Policy Recommendations

It is recommended that the Municipality's current D.C. policies, as identified in section 1.2 of this report, be continued with one minor amendment to the timing of collection of D.C.'s at the time of first building permit issuance to ensure the by-law is in compliance with the amendments to the D.C.A. as set out in Bill 73 which came into force January 1, 2016.

2. Changes to the D.C.A. and Items to be Addressed by the Update

With the amendment of the D.C.A. (as a result of Bill 73 and O.Reg. 428/15), there are a number of areas that must be addressed to ensure that the Municipality is in compliance with the D.C.A., as amended. The following provides an explanation of the changes to the Act that affect the Municipality's Background Study and how they have been dealt with to ensure compliance with the amended legislation.

2.1 Area Rating

Bill 73 has introduced two new sections where Council must consider the use of area specific charges:

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

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

Presently, the Municipality's by-law provides area rated charges for the Ailsa Craig, Nairn, and Petty and Parkhill Areas. These charges are for recovery of costs specific to specific developments that benefit directly from the identified works. The Municipality does not provide development charges on a Municipal-wide basis. As the services included in the study are roads, water, wastewater, and stormwater, and the projects can be associated with each specific growth area, it is recommended that the Municipality continue their practice of utilizing area-specific charges.

2.2 Asset Management Plan for New Infrastructure

The new legislation now requires that a D.C. Background Study must include an Asset Management Plan (s. 10 (2)c.2). The asset management plan must deal with all assets

that are proposed to be funded, in whole or in part, by D.C.s. The current regulations provide very extensive and specific requirements for the asset management plan related to transit services however, are silent with respect to how the asset management plan is to be provided for all other services. As part of any asset management plan, the examination should be consistent with the municipality's existing assumptions, approaches and policies on asset management planning. This examination may include both qualitative and quantitative measures such as examining the annual future lifecycle contributions needs (discussed further in Appendix B of this report).

2.3 60-Day Circulation of D.C. Background Study

Previously the legislation required that a D.C. Background study be made available to the public at least two weeks prior to the public meeting. The amended legislation now provides that the D.C. Background study must be made available to the public (including posting on the municipal website) at least 60 days prior to passage of the D.C. by-law. No other changes were made to timing requirements for such things as notice of the public meeting and notice of by-law passage.

This D.C. update study is being provided to the public on March 23, 2017 to ensure the new requirements for release of the study is met.

2.4 Timing of Collection of Development Charges

The D.C.A. has been refined by Bill 73 to require that D.C.s are collected at the time of the first building permit. For many developments, this will not impact the Municipality's present process. However, there may be instances where several building permits are to be issued and either the size of the development or the uses will not be definable. In these instances, the Municipality may enter into a delayed payment agreement in order to capture the full development.

2.5 Other Changes

It is also noted that a number of other changes were made through Bill 73 and O.Reg. 428/15 including changes to the way in which Transit D.C. service standards are calculated and the ability for collection of additional levies; however, these sections do not apply to the Municipality's D.C.

3. Anticipated Development

The 2013 development charges study provided for the anticipated residential and non-residential unit growth within the Ailsa Craig, Nairn, and Petty and Parkhill Areas. Since the 2013 D.C. study, a number of residential units have been constructed in the growth areas. The D.C. funding obtained through units developed in the Ailsa Craig, Nairn, and Petty areas was used to pay for works already constructed. The D.C. funding obtained from units developed in the Parkhill area is deposited into the reserve fund and used to pay for the identified works as they arise.

The unit growth forecast identified in the 2013 background study is summarized in Table 3-1 below.

Table 3-1
Municipality of North Middlesex
2013 D.C. Background Study – Growth Forecast Summary

Measure	Ailsa Craig, Nairn, and Petty	Parkhill
Residential Units Identified	213	312
Non-Residential (Equivalent Residential Units)	244	256

Note: the residential units anticipated to be constructed are mainly single-detached units, however, provision should be made for potential medium and high density units which may occur within the community. In most D.C. studies, the calculation of the charge considers the average occupancy per unit. Based upon Statistics Canada data (presented in Appendix A) for the municipality (note sufficient data was not available, so the County average was used), the following persons per unit (p.p.u.) were identified along with the percentage relationship to single detached units.

Unit Type	PPU by Unit Type	Relationship to Single-Detached
Low Density	3.22	100%
Medium Density	2.51	78%
High Density	1.43	44%

The non-residential gross floor area is based on equivalent residential units for the 2013 D.C. study. Based on information provided by an engineering report, it was estimated that 0.666 acres of land generated the same need for service as one residential unit. Based upon a 25% building coverage, 7,257 square feet of non-residential building space per residential unit would be provided.

Further detail on the anticipated growth for each area is provided in the Chapter 2 excerpt from the 2013 D.C. Background Study in Appendix A.

For the purposes of this D.C. update, the 2013 D.C. Background Study non-residential growth forecast remains unchanged. The anticipated works for the envelope of growth identified remains unchanged as well.

4. Updates to the Capital Costing

The Municipality passed By-law 8-2013 on February 21, 2013, being a by-law for the purposes of establishing and collecting a development charge in accordance with the provisions of the *Development Charges Act*. The D.C. Background Study and By-law identified anticipated capital needs for recovery through development charges for Area-Specific Charges for the Ailsa Craig, Nairn, and Petty and Parkhill areas. This chapter of the report summarizes the updated costing for the anticipated capital needs and the statutory requirements for updating the calculations through a D.C. update process.

4.1 Ailsa Craig, Nairn, and Petty Areas

4.1.1 *Water and Roads Servicing Costs*

The capital costs associated with the water and roads needs have been indexed from 2013 dollars to 2017 dollars using the non-residential building construction price index (4.52%). The benefit to existing shares remain the same as in the 2013 D.C. study. The gross and net growth-related capital costs are shown in tables 4-1 and 4-2, respectively.

The revised costing results in a net recoverable cost (in 2017 dollars) of \$436,900 for roads and \$69,700 for water over the forecast period.

Table 4-1
Summary of Gross Capital Costs

Project #	Description	Roads 2013 \$	Roads 2017 \$	Water 2013 \$	Water 2017 \$	Total 2013 \$	Total 2017 \$	% Recoverable from Growth
1	East Williams - Alma to Petty - resurfacing	183,000	191,300			183,000	191,300	50%
2	Bear Creek Intersection improvements and Traffic light	300,000	313,600			300,000	313,600	50%
3	Petty from Queen to .5 km south - Sidewalk/Lighting	176,500	184,500			176,500	184,500	100%
4	Water Debt #26-25059- O/S Balance			22,917	24,000	22,917	24,000	100%
5	Water Debt #26-25156- O/S Balance			43,749	45,700	43,749	45,700	100%
Total		659,500	689,400	66,666	69,700	726,166	759,100	67%

Table 4-2
Summary of Net Growth-related Capital Costs

Project #	Description	Roads 2013 \$	Roads 2017 \$	Water 2013 \$	Water 2017 \$	Total 2013 \$	Total 2017 \$
1	East Williams - Alma to Petty - resurfacing	91,500	95,600	-		91,500	95,600
2	Bear Creek Intersection improvements and Traffic light	150,000	156,800	-		150,000	156,800
3	Petty from Queen to .5 km south - Sidewalk/Lighting	176,500	184,500	-		176,500	184,500
4	Water Debt #26-25059- O/S Balance	-		22,917	24,000	22,917	24,000
5	Water Debt #26-25156- O/S Balance	-		43,749	45,700	43,749	45,700
Total		418,000	436,900	66,666	69,700	484,666	506,600

4.1.2 Sanitary Sewer Servicing Costs

The capital costs associated with the sanitary sewer works have been indexed from 2013 dollars to 2017 dollars using the non-residential building construction price index (4.52%). The detailed costing for the sanitary sewer capital expenditures are provided below in table 4-3.

The revised costing results in a net recoverable cost of \$2,046,880 (in 2017 dollars) over the forecast period.

Table 4-3
Summary of Sanitary Sewer Capital Expenditures

Description	Total Project Cost	Benefiting Areas	Benefiting Areas
		New Development 2013 \$	Development 2017 \$
Capital Expenditures - Wastewater Servicing Project (net of Land and Interim Financing)	14,449,564	1,912,387	1,998,889
Total Capital Expenditures Excluding Interim Financing	14,449,564	1,912,387	1,998,889
Less:			
COMRIF Grant/OSTAR Funding	7,235,385	-	-
Total Grants and Funding	7,235,385	-	-
Net Capital Expenditures	7,214,179	1,912,387	1,998,889
Add:			
Land Costs	30,000	-	-
Net Capital Expenditures (including Land)	7,244,179	1,912,387	1,998,889
Add: Interim Financing	167,200	45,914	47,991
Net Capital Expenditures (including Land and Interim Financing)	7,411,379	1,958,301	2,046,880
Less:			
Reserves	275,000	-	-
Net Capital Expenditures	7,136,379	1,958,301	2,046,880
Net Capital Expenditures Before Interest	7,084,792	1,876,000	1,960,856
%age of Net Capital Expenditures Before Interest		29%	29%
Other Funding			
Amount to be recovered from Ailsa Craig Infill Lots	84,903	-	-
Storm Sewer Upgrade on Queens Avenue	259,810	-	-
Special Septage Disposal Charge	280,000	-	-
Sewer Oversizing Contribution	70,224	-	-
East Williams Public School	63,070	-	-
Shady Pines Campground	195,820	-	-
Craigwood Youth Services	242,850	-	-
Other Related Funding	243,968	-	-
Total Other Funding Sources	1,440,645	-	-
Net Capital Expenditures	5,695,734	1,958,301	2,046,880
Total			2,046,880
Number of Lots (Residential Equivalent)	-	244	244
Recovery per lot	-	8,026	8,389

(1) to be recovered by a special fee for septage treatment

4.2 Parkhill Area

4.2.1 Water, Wastewater, Roads, and Stormwater Servicing Costs

The capital costs associated with water, wastewater, roads, and stormwater services in the Parkhill Area have been indexed from 2013 dollars to 2017 dollars using the non-residential building construction price index (4.52%). The benefit to existing shares remain the same as in the 2013 D.C. study. The gross and net growth-related capital costs are shown in tables 4-4 and 4-5, respectively.

The revised costing results in the following net recoverable costs:

- Water - \$536,200;
- Wastewater - \$4,470,500;
- Roads - \$658,300; and
- Stormwater - \$541,400.

In total the D.C. recoverable amounts are \$6,206,400 (in 2017 dollars).

Table 4-4
Summary of Gross Capital Costs

Description	Offsite Streets Affected	Roads 2013 \$	Roads 2017 \$	Water 2013 \$	Water 2017 \$	Sanitary 2013 \$	Sanitary 2017 \$	Storm 2013 \$	Storm 2017 \$	Total 2013 \$	Total 2017 \$	% Recoverable from Growth
Hofstra	County Rd. 8	97,000	101,400	-	-					97,000	101,400	50%
Dr. Merrit	Eagle, Hastings	171,700	179,500	33,000	34,500					204,700	214,000	58%
North of Drain	Duke, Centre, Park, Mcleod	469,000	490,200	131,000	136,900			147,000	153,600	747,000	780,700	69%
North of Drain	West Park Construction	1,160,000	1,212,500	371,111	387,900	121,000	126,500	824,444	861,700	2,476,556	2,588,600	37%
Industrial				182,000	190,200	219,000	228,900			401,000	419,100	100%
Industrial						437,000	456,800			437,000	456,800	100%
		1,897,700	1,983,600	717,111	749,500	777,000	812,200	971,444	1,015,300	4,363,256	4,560,600	
Lagoon - New Hamburg Upgrade						7,000,000	7,316,600			7,000,000	7,316,600	50%
		1,897,700	1,983,600	717,111	749,500	7,777,000	8,128,800	971,444	1,015,300	11,363,256	11,877,200	52%

Note: The northeast area of I-3 will require localized grinder pumps for each lot and/or a localized pumping station. These costs are not included above and will be the developers direct costs to install.

Table 4-5
Summary of Net Growth-related Capital Costs

Description	Offsite Streets Affected	Roads 2013 \$	Roads 2017 \$	Water 2013 \$	Water 2017 \$	Sanitary 2013 \$	Sanitary 2017 \$	Storm 2013 \$	Storm 2017 \$	Total 2013 \$	Total 2017 \$
Hofstra	County Rd. 8	48,500	50,700	-	-	-	-	-	-	48,500	50,700
Dr. Merrit	Eagle, Hastings	85,850	89,700	33,000	34,500	-	-	-	-	118,850	124,200
North of Drain	Duke, Centre, Park, Mcleod	234,500	245,100	131,000	136,900	-	-	147,000	153,600	512,500	535,600
North of Drain	West Park Construction	261,000	272,800	167,000	174,600	121,000	126,500	371,000	387,800	920,000	961,700
Industrial		-	-	182,000	190,200	219,000	228,900	-	-	401,000	419,100
Industrial		-	-	-	-	437,000	456,800	-	-	437,000	456,800
		629,850	658,300	513,000	536,200	777,000	812,200	518,000	541,400	2,437,850	2,548,100
Lagoon - New Hamburg Upgrade		-	-	-	-	3,500,000	3,658,300	-	-	3,500,000	3,658,300
Total		629,850	658,300	513,000	536,200	4,277,000	4,470,500	518,000	541,400	5,937,850	6,206,400

Note: The northeast area of I-3 will require localized grinder pumps for each lot and/or a localized pumping station. These costs are not included above and will be the developers direct costs to install.

4.3 D.C. By-law Revised Schedule of Charges

4.3.1 Updated D.C. Calculation (2017 \$)

Detailed calculation tables underlying the anticipated capital needs for each growth area are summarized in the tables below. The tables provide the calculation of the development charges to be imposed on anticipated development in the Ailsa Craig, Nairn, and Petty area, and Parkhill area over the planning horizon.

For the residential calculations, the D.C.-eligible costs are divided by the residential and non-residential E.R.U.'s (Equivalent Residential Units), thus providing a "per E.R.U." (or single detached unit). The cost per unit is then multiplied by the percentage relationship other units have relative to single detached units to derive the charge for medium and high density building forms. Similar calculations are provided for non-residential development however, the D.C.-eligible cost per unit for each service is divided by the forecast building area (square footage) per E.R.U. to provide the non-residential charge on a cost per square foot basis.

**Ailsa Craig, Nairn, and Petty Areas
Roads and Water
Residential Development Charge Calculation
2017\$**

Residential Development Charge Per Single Detached Unit

Service	Growth Costs	Residential Equivalent Units (ERU)	Cost Per ERU (Single Detached) Unit
Roads	436,900	213	2,051
Water	69,700	213	327
Wastewater			
Storm			
Total	506,600		2,378

Relationship Between Single Detached and Other Units

Unit Type	PPU By Unit Type	Relationship to Single Detached
Low Density	3.22	100%
Medium Density	2.51	78%
High Density	1.43	44%

Development Charge By Unit Type Based on Above

Service	Low Density	Medium Density	High Density
Roads	2,051	1,599	911
Water	327	255	145
Wastewater			
Storm			
Total	2,378	1,854	1,056

**Non-Residential Development Charge Calculation
2017 \$**

Service	Cost Per ERU (Single Detached) Unit	SQ. Ft. of Building Space per ERU	Non-Residential (\$/ sq. Ft.)
Roads	2,051	7,257	0.28
Water	327	7,257	0.05
Wastewater			
Storm			
Total	2,378		0.33

**Ailsa Craig, Nairn, and Petty Areas
Sanitary Sewer
Residential Development Charge Calculation
2017\$**

Residential Development Charge Per Single Detached Unit

Service	Growth Costs	Residential Equivalent Units (ERU)	Cost Per ERU (Single Detached) Unit
Roads			
Water			
Wastewater	2,046,880	244	8,389
Storm			
Total	2,046,880		8,389

Relationship Between Single Detached and Other Units

Unit Type	PPU By Unit Type	Relationship to Single Detached
Low Density	3.22	100%
Medium Density	2.51	78%
High Density	1.43	44%

Development Charge By Unit Type Based on Above

Service	Low Density	Medium Density	High Density
Roads			
Water			
Wastewater	8,389	6,539	3,726
Storm			
Total	8,389	6,539	3,726

**Non-Residential Development Charge Calculation
2017 \$**

Service	Cost Per ERU (Single Detached) Unit	SQ. Ft. of Building Space per ERU	Non-Residential (\$/ sq. Ft.)
Roads			
Water			
Wastewater	8,389	7,257	1.16
Storm			
Total	8,389	7,257	1.16

**Parkhill Area
Residential Development Charge Calculation
2017\$**

Residential Development Charge Per Single Detached Unit

Service	Growth Costs	Residential Equivalent Units (ERU)	Cost Per ERU (Single Detached) Unit
Roads	658,300	548	1,201
Water	536,200	568	944
Wastewater	4,470,500	568	7,871
Storm	541,400	568	953
Total	6,206,400		10,969

Relationship Between Single Detached and Other Units

Unit Type	PPU By Unit Type	Relationship to Single Detached
Low Density	3.22	100%
Medium Density	2.51	78%
High Density	1.43	44%

Development Charge By Unit Type Based on Above

Service	Low Density	Medium Density	High Density
Roads	1,201	936	533
Water	944	736	419
Wastewater	7,871	6,135	3,496
Storm	953	743	423
Total	10,969	8,550	4,871

**Non-Residential Development Charge Calculation
2017 \$**

Service	Cost Per ERU (Single Detached) Unit	SQ. Ft. of Building Space per ERU	Non-Residential (\$/ sq. Ft.)
Roads	1,201	7,257	0.17
Water	944	7,257	0.13
Wastewater	7,871	7,257	1.08
Storm	953	7,257	0.13
Total	10,969		1.51

4.3.2 50% Reduction

Based on direction from Council, the updated development charges are to be reduced by 50% and remain reduced until the Municipality's next study update.

Table 4-9 and 4-10 provides for the updated development charges, reduced by 50%, and compared to the current charges for each respective area.

Table 4-9
Schedule of Ailsa Craig/Nairn/Petty Area-specific Development Charges

Residential -Single & Semi-detached Dwelling Charge					
Service	Current Charge 2017 \$	Calculated Charge 2017 \$	50% Reduction of Calculated Charge	2013 Bylaw Charge 2013 \$	2017 Calculated Charge (reduced by 50%) Deflated to 2013 \$
Roads	2,051	2,051	1,026	1,962	981
Water	327	327	164	313	156
Wastewater	8,389	8,389	4,195	8,026	4,013
Total	10,767	10,767	5,384	10,301	5,150

Non-residential -Per sq.ft.					
Service	Current Charge 2017 \$	Calculated Charge 2017 \$	50% Reduction of Calculated Charge	2013 Bylaw Charge 2013 \$	2017 Calculated Charge (reduced by 50%) Deflated to 2013 \$
Roads	0.28	0.28	0.14	0.27	0.13
Water	0.05	0.05	0.03	0.04	0.02
Wastewater	1.16	1.16	0.58	1.11	0.55
Total	1.49	1.49	0.75	1.42	0.70

Note: Current Charges effective October 14, 2016

Table 4-10
Schedule of Parkhill Area-specific Development Charges

Residential -Single & Semi-detached Dwelling Charge

Service	Current Charge 2017 \$	Calculated Charge 2017 \$	50% Reduction of Calculated Charge	2013 Bylaw Charge 2013 \$	2017 Calculated Charge (reduced by 50%) Deflated to 2013 \$
Roads	1,201	1,201	601	1,149	574
Water	944	944	472	903	452
Wastewater	7,872	7,872	3,936	7,530	3,765
Storm	953	953	477	912	456
Total	10,970	10,970	5,485	10,494	5,247

Non-residential -Per sq.ft.

Service	Current Charge 2017 \$	Calculated Charge 2017 \$	50% Reduction of Calculated Charge	2013 Bylaw Charge 2013 \$	2017 Calculated Charge (reduced by 50%) Deflated to 2013 \$
Roads	0.17	0.17	0.09	0.16	0.08
Water	0.13	0.13	0.07	0.13	0.06
Wastewater	1.09	1.09	0.55	1.04	0.52
Storm	0.13	0.13	0.07	0.12	0.06
Total	1.52	1.52	0.76	1.45	0.72

Note: Current Charges effective October 14, 2016

5. Recommendations

It is recommended that Council:

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

“Continue the development charge approach to calculate the charges on an area-specific basis”;

“Approve the Development Charges Update Study dated March 23, 2017, as amended (if applicable)”;

“Approve the updated calculation set out in Chapter 4 of the Development Charges Update Study dated March 23, 2017, as amended (if applicable)”;

“Approve the 50% reduction of the calculated amounts in Chapter 4 of the Development Charges Update Study dated March 23, 2017, as amended (if applicable)”;

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

“Approve the Amending Development Charge By-law as set out in Appendix C”.

Appendix A – County P.P.U.s and Chapter 2 Excerpt from 2013 D.C. Background Study

Appendix A-1

**MIDDLESEX COUNTY
PERSONS PER UNIT BY AGE AND TYPE OF DWELLING
(2006 CENSUS)**

Age of Dwelling	SINGLES AND SEMI-DETACHED					Total
	< 1 BR	1 BR	2 BR	3/4 BR	5+ BR	
1-5	-	-	1.981	3.275	4.500	3.129
6-10	-	-	2.000	3.360	4.100	3.209
11-15	-	-	1.952	3.401	3.923	3.318
16-20	-	-	1.967	3.017	4.263	3.053
20-25	-	-	2.087	3.024	5.056	3.028
25-35	-	-	1.878	2.898	3.923	2.787
35+	-	1.590	2.014	2.772	3.703	2.682
Total	0.714	1.556	1.987	2.966	3.990	2.871

Age of Dwelling	MULTIPLES ²					Total
	< 1 BR	1 BR	2 BR	3/4 BR	5+ BR	
1-5	-	-	1.364	-	-	2.083
6-10	-	-	-	-	-	2.263
11-15	-	-	-	-	-	3.182
16-20	-	-	-	-	-	-
20-25	-	-	-	-	-	-
25-35	-	-	-	2.364	-	2.333
35+	-	-	1.941	2.862	-	2.517
Total	-	1.350	2.019	2.855	-	2.408

Age of Dwelling	APARTMENTS ³					Total
	< 1 BR	1 BR	2 BR	3/4 BR	5+ BR	
1-5	-	-	-	-	-	-
6-10	-	-	-	-	-	1.550
11-15	-	1.125	1.583	-	-	1.303
16-20	-	1.043	1.615	-	-	1.282
20-25	-	0.929	-	-	-	1.333
25-35	-	1.037	2.250	-	-	1.512
35+	-	1.145	1.789	2.474	-	1.623
Total	0.667	1.096	1.823	2.481	-	1.503

Age of Dwelling	ALL DENSITY TYPES					Total
	< 1 BR	1 BR	2 BR	3/4 BR	5+ BR	
1-5	-	1.231	1.922	3.266	4.500	3.062
6-10	-	1.429	1.944	3.348	4.238	3.077
11-15	-	1.409	1.972	3.385	3.923	3.136
16-20	-	1.161	1.935	3.034	4.629	2.873
20-25	-	1.095	1.971	3.006	4.700	2.805
25-35	-	1.114	1.949	2.883	3.805	2.704
35+	1.538	1.314	1.981	2.771	3.743	2.615
Total	0.750	1.256	1.965	2.960	4.019	2.772

1. The Census PPU has been adjusted to account for the downward PPU trend which has been recently experienced in both new and older units, largely due to the aging of the population

2. Includes townhomes and apartments in duplexes.

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

Note: Does not include Statistics Canada data classified as 'Other'

Note: Does not include institutional population

2. ANTICIPATED DEVELOPMENT

2. ANTICIPATED DEVELOPMENT

2.1 Ailsa Craig, Nairn and Petty Area

As noted earlier, the purpose of this study is to provide a development charge for services specific to the Ailsa Craig, Nairn and Petty area as well as the Parkhill area. In regard to the Ailsa Craig, Nairn and Petty areas, Maps 2-1 and 2-2 identify the chargeable service areas.

With respect to residential lands, there are several development parcels which have the potential for 183 single family units. In addition, there are 30 infill lots providing a total of 213 units. These units are detailed below:

Residential Units (Single Family)

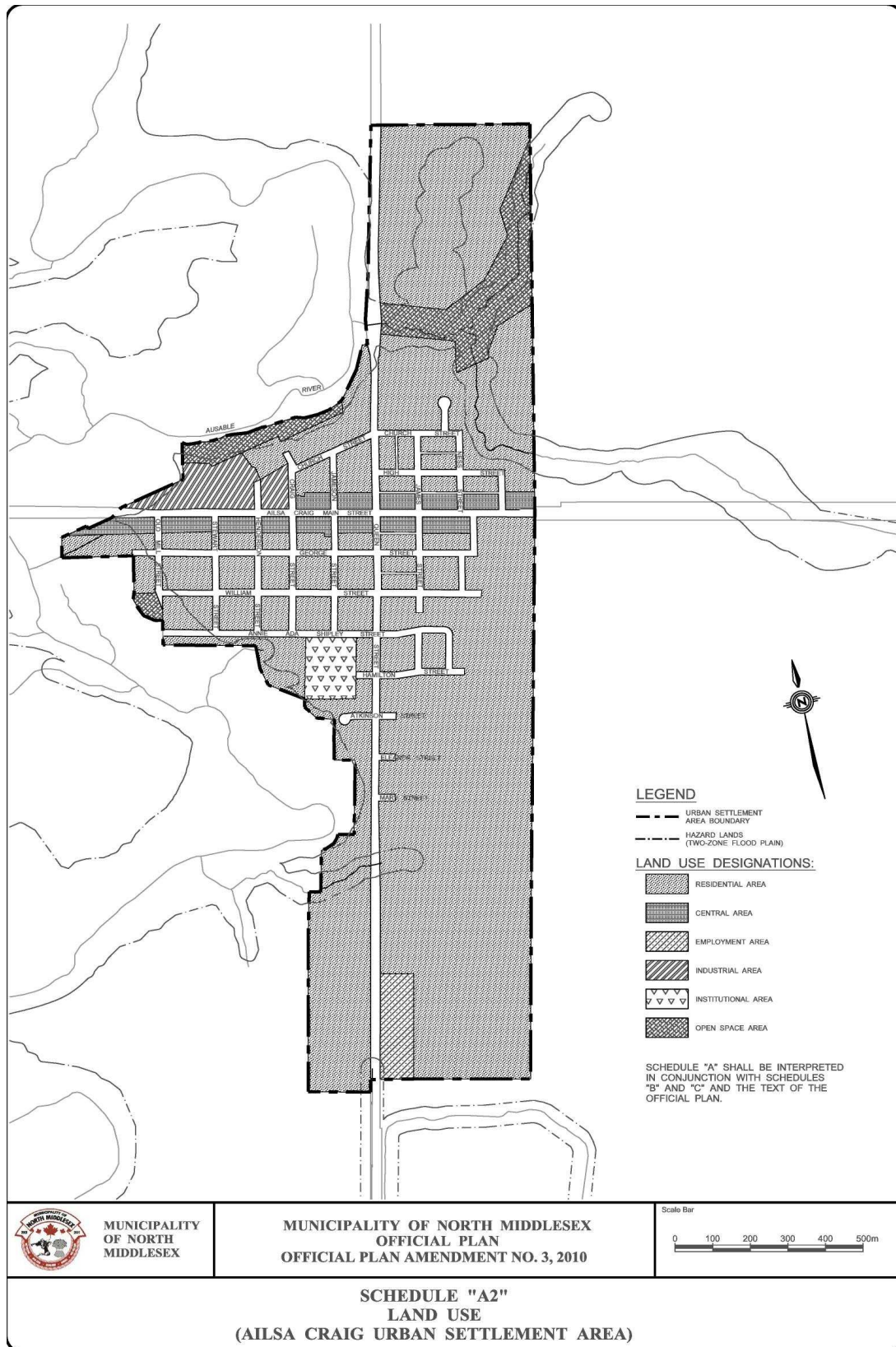
Lands	Units
Ailsa Craig and Nairn	183
Infill Lots - Ailsa Criag, Nairn and Petty	30
Residential Units	213

The above growth information is provided for the purposes of calculating the Development Charge for water and road purposes within the service area. For the wastewater service, the original calculation of growth was based upon the additional service capacity of the wastewater treatment facility after servicing existing residents and businesses within the area. In total, the excess capacity of the plant would service 265 equivalent residential units (ERU's). At the time, Council provided an incentive for a period of time to allow the infill lots the opportunity to prepay the wastewater development charge (only). 21 lots took advantage of this opportunity. The net capacity of the plant for development charge purposes is 244 residential equivalent units (i.e. $265 - 21 = 244$ ERU's).

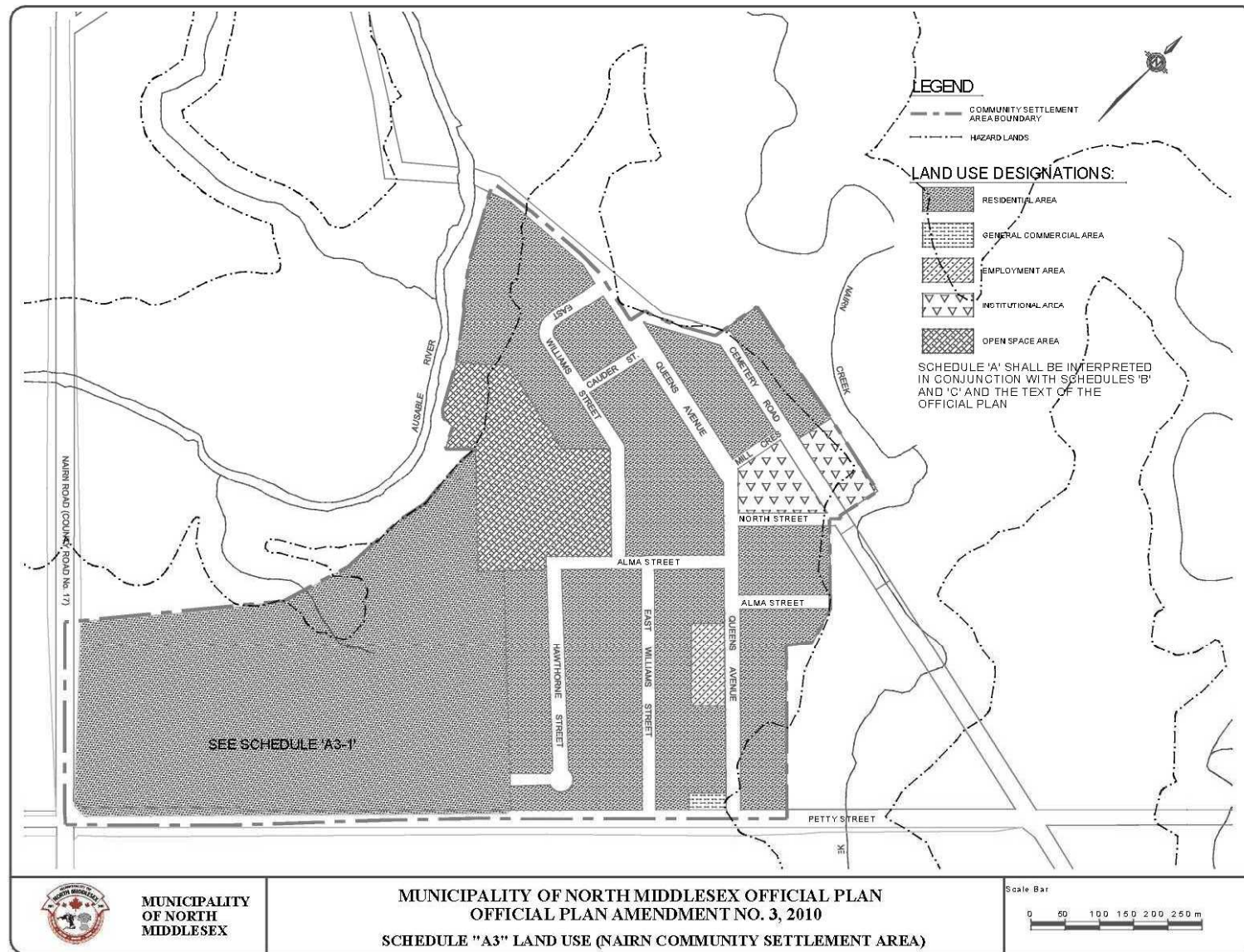
As noted earlier, the residential development anticipated is predominantly single detached units. However, provision should be made for potential medium and high density units which may occur within the community. In most DC studies, the calculation of the charge considers the average occupancy per unit. Based upon Statistics Canada data (presented in Appendix A) for the municipality (note sufficient data was not available, so the County average was used), the following persons per unit (ppu) were identified along with the percentage relationship to single detached units.

Unit Type	ppu by Unit Type	Relationship to Single Detached
Low Density	3.22	100%
Medium Density	2.51	78%
High Density	1.43	44%

MAP 2-1
Ailsa Craig Chargeable Service Areas



MAP 2-2
Nairn and Petty Chargeable Service Areas



In regards to non-residential development, Dillon Consulting had provided an estimate that .666 acres of land generated the same need for service as one residential unit. Based upon a 25% building coverage, 7,257 square feet of non-residential building space per residential unit would be provided.

2.2 Parkhill Area

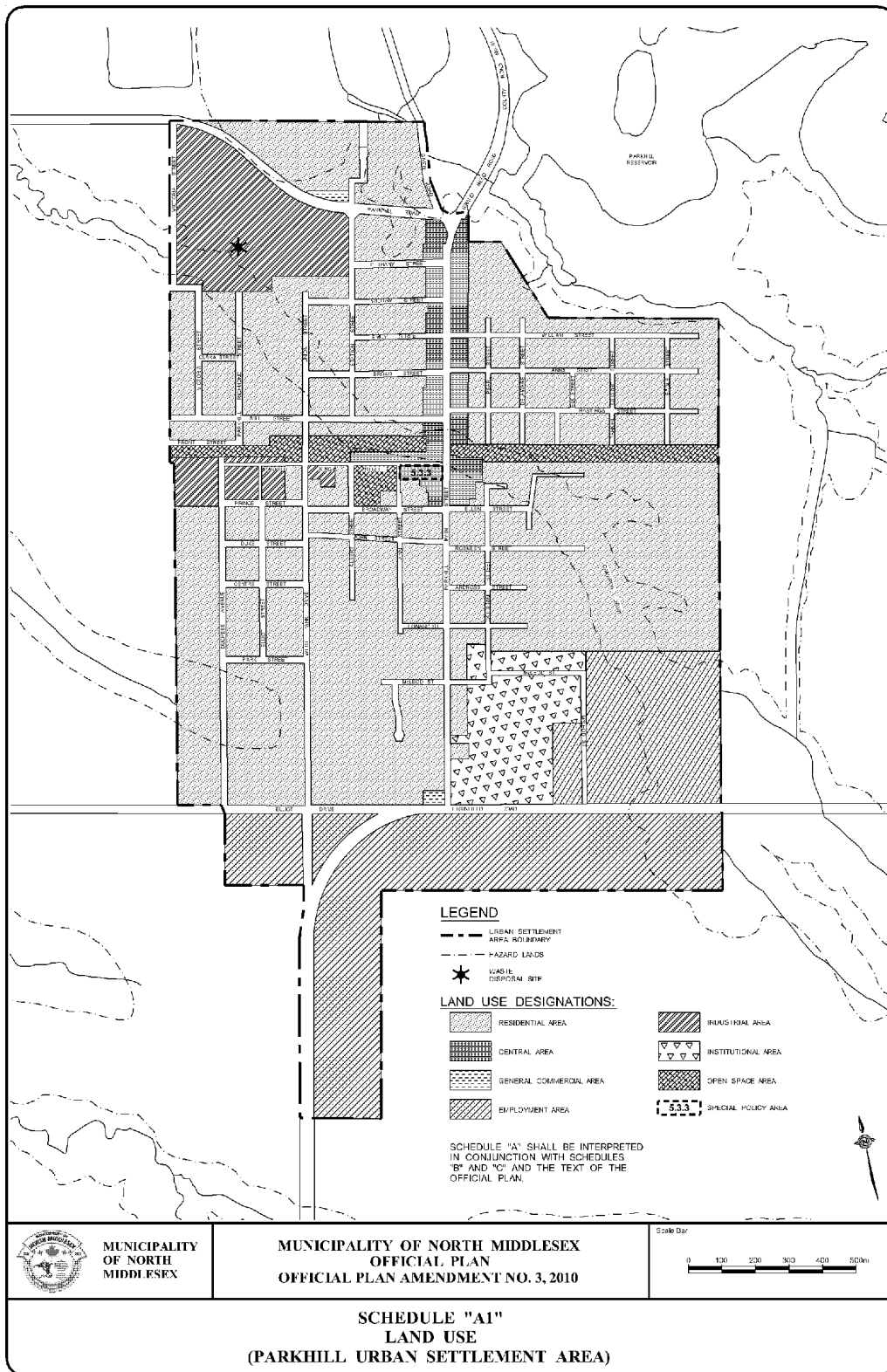
As noted earlier, the prior study provided a development charge for roads, water, sanitary and storm services specific to the Parkhill area. The Parkhill urban settlement area, along with the identified residential and industrial developable lands, is provided on Map 2-3.

With respect to residential lands, there are three development parcels which have the potential for 292 single family units. In addition, there are 20 infill lots providing a total of 312 units. These units are detailed below. Note that in the 2009 study, it was anticipated that the Hofstra property would be redesignated as residential and yield 90 units. No application has come forth, hence the 90 units have been removed from the residential listing and the 20 acres of land has been added to the industrial land total, providing 170.6 acres of land. Based upon .666 acres of land requiring a similar need for service as a residential unit, the 170.6 acres of industrial land would have the same servicing needs as 256 residential unit equivalents.

Residential Units (Single Family)

Lands	Units
Merrit	22
West Park (East Side)	45
West Park (Elliott)	225
Infill	20
Residential Units	402

MAP 2-3
Parkhill Chargeable Service Areas



Appendix B – Asset Management and Long Term Capital and Operating Cost Examination

B-1 Asset Management

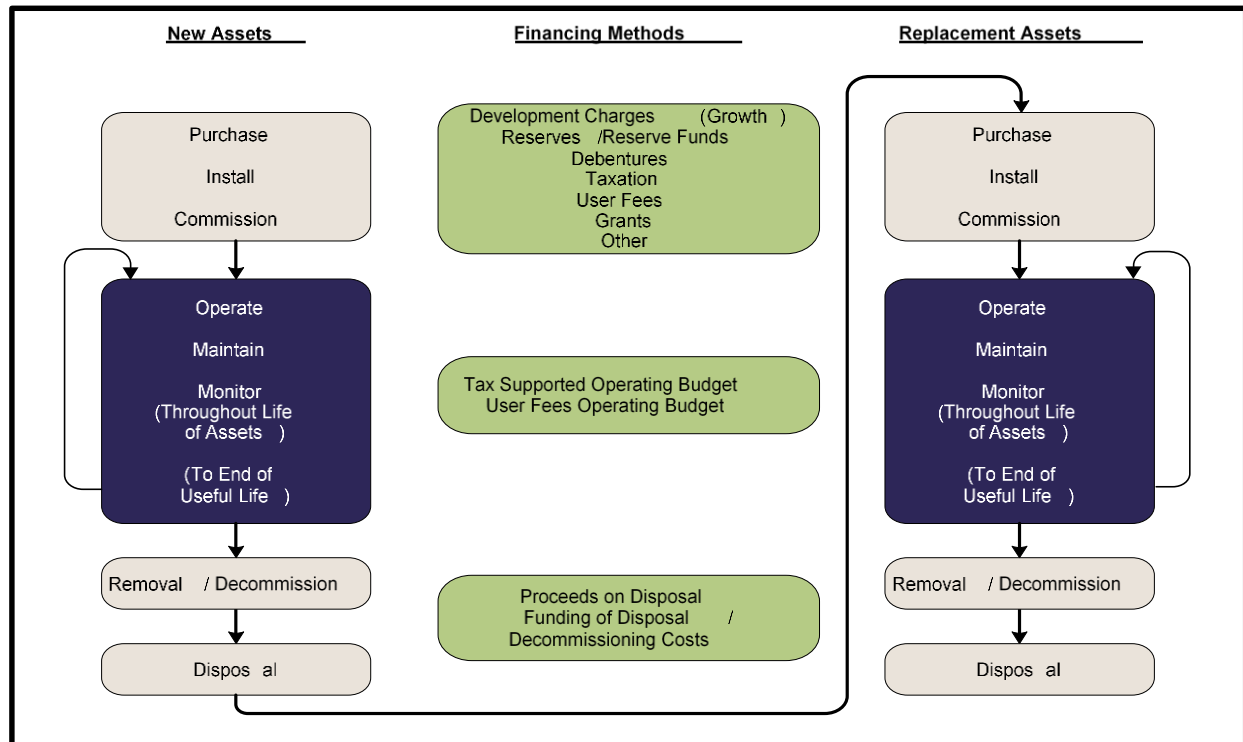
The recent changes to the D.C.A. (new section 10(c.2)) require that the Background Study must include an asset management plan related to new infrastructure. Section 10 (3) of the D.C.A. provides:

The asset management plan shall,

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

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

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



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

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

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

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

Financing strategy: having a financial plan is critical for putting an A.M.P. into action. By having a strong financial plan, municipalities can also demonstrate that they have made a concerted effort to integrate the A.M.P. with financial planning and municipal budgeting, and are making full use of all available infrastructure financing tools.

Commensurate with the above, the Municipality prepared an Asset Management Plan in 2014 for its existing assets, however, the plan does not include all asset categories that

are included for the indoor recreation services in the capital forecast needs of this D.C. background study. As a result, the asset management requirement for the D.C. must be undertaken in the absence of this information.

In recognition to the schematic above, the following table has been developed to provide the annualized expenditures and revenues associated with new growth. Note that the D.C.A. does not require an analysis of the non-D.C. capital needs or their associated operating costs so these are omitted from the table below. As well, as all existing assets for the categories of assets included in the D.C. eligible capital costs are not included in the Municipality's 2014 Asset Management Plan, the present infrastructure gap and associated funding plan have not been considered at this time. Hence the following does not represent a fiscal impact assessment (including future tax/rate increases) but provides insight into the potential affordability of the new assets:

1. The non-D.C. recoverable portion of the projects which will require financing from Municipality financial resources (i.e. taxation, rates, fees, etc.). This amount has been presented on an annual debt charge amount based on 20-year financing.
2. Lifecycle costs for the 2016 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 Indoor Recreation services (only) have been included.
4. The resultant total annualized expenditures are approximately \$2.45 million.
5. Consideration was given to the potential new taxation and user fee revenues which will be generated as a result of new growth. These revenues will be available to finance the expenditures above. The new operating revenues over time will be \$1.86 million. This amount, totalled with the existing operating revenues of \$12.14 million, provide annual revenues of \$14.00 million by the end of the period.
6. In consideration of the above, the capital plan is deemed to be financially sustainable.

Table B-1
Municipality of North Middlesex
Asset Management - Future Expenditures and Associated Revenues

	Sub-Total	Buildout (Total)
Expenditures (Annualized)		
Annual Debt Payment on Non-Growth Related Capital ¹ (2014 DC and 2016 updates)		338,329
Lifecycle:		
Annual Lifecycle - Area Specific Services ¹	\$685,178	
Sub-Total - Annual Lifecycle	\$685,178	\$685,178
Incremental Operating Costs (for D.C. Services)		\$1,422,374
Total Expenditures		\$2,445,881
Revenue (Annualized)		
Total Existing Revenue ²		\$12,139,031
Incremental Tax and Non-Tax Revenue (User Fees, Fines, Licences, etc.)		\$1,861,228
Total Revenues		\$14,000,259

¹ All infrastructure costs included in Area Specific by-laws have been included

² As per Sch. 10 of FIR

B-2 Long Term Capital and Operating Cost Examination

Municipality of North Middlesex Annual Capital and Operating Cost Impact

As a requirement of the D.C.A. s.10(2)(c), an examination for each service to which the development charge by-law would relate, of the long term capital and operating costs for capital infrastructure required for the service.” The D.C.A. s.10(2)(c.2) also requires an asset management plan be prepared. As prepared in Appendix B-1.

As part of this analysis, it was deemed necessary to isolate the incremental operating expenditures directly associated with these capital projects, factor in cost saving attributable to economies of scale or cost sharing where applicable, and prorate the cost on a per unit basis (i.e. sq.ft. of building space, per vehicle, etc.). This was undertaken through a review of the Municipality’s approved 2015 F.I.R.

In addition to the operational impacts, over time the initial capital projects will require replacement. This replacement of capital is often referred to as lifecycle cost. By definition, lifecycle costs are all the costs which are incurred during the life of a physical asset, from the time its acquisition is first considered, to the time it is taken out of service for disposal or redeployment. The method selected for life cycle 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:

Asset Class	Factor	Term
Roads	0.02000	35
Stormwater	0.00586	75
Water	0.00320	100
Wastewater	0.00320	100

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

Table B-2
Municipality of North Middlesex
Operating and Capital Expenditure Impacts
For Future Capital Expenditures

SERVICE	GROSS COST LESS BENEFIT TO EXISTING	ANNUAL LIFECYCLE EXPENDITURES	ANNUAL OPERATING EXPENDITURES	TOTAL ANNUAL EXPENDITURES
1. Services Related to a Highway				
1.1 Roads	1,095,200	61,642	764,974	826,616
2. Water Services				
2.1 Treatment, storage and distribution systems	605,900	37,296	417,695	454,991
3. Wastewater Services				
3.1 Treatment plants & Sewers	6,517,380	401,156	226,221	627,377
4. Stormwater Drainage and Control Services				
4.1 Channels, drainage and ponds	541,400	29,092	13,483	42,575
Total	8,759,880	529,186	1,422,374	1,951,560

Appendix C – Draft Amending Development Charge By-law

The Corporation of the Municipality of North Middlesex

By-law Number ___ of 2017

Being a By-Law of

The Corporation of the Municipality of North Middlesex

To Amend By-Law 2013-8

Respecting Development Charges

Whereas the Municipality of North Middlesex enacted By-law 2013-8 pursuant to the *Development Charges Act, 1997*, S.O. 1997, c. 27, as amended (the “Act”), which Act authorizes Council to pass by-laws for the imposition of development charges against land;

And Whereas the Municipality has undertaken a study pursuant to the Act which has identified updated capital costs for inclusion in the Municipality’s development charges;

And Whereas Council has before it a report entitled “Municipality of North Middlesex Development Charge Update Study” prepared by Watson & Associates Economists Ltd., dated March 23, 2017 (the “update study”);

And Whereas the update study and proposed amending by-law were made available to the public on March 23, 2017 and Council gave notice to the public pursuant to section 12 of the Act.

And Whereas Council, on May 3, 2017 held a meeting open to the public, pursuant to section 12 of the Act, at which Council considered the study, and written and oral submissions from the public;

NOW THEREFORE THE COUNCIL OF THE CORPORATION OF THE MUNICIPALITY OF NORTH MIDDLESEX HEREBY ENACTS AS FOLLOWS:

1. By-law 2013-8 is hereby amended as follows:
 - a) Schedule “B” and Schedule “C” are deleted and the attached Schedule “B” and Schedule “C” substituted therefore.
 - b) Section 3.14 is deleted and replaced with the following:

Development charges imposed under this By-law are calculated, payable and collected upon issuance of the first building permit for the development.

2. This by-law shall come into force on the day it is enacted.
3. Except as amended by this By-law, all provisions of By-law 2013-8 are and shall remain in full force and effect.

By-law read a first and second time this _____ day of June, 2017.

By-law read a third time and finally passed this _____ day of June, 2017.

Corporation of the Municipality of North Middlesex

Mayor: _____

Clerk: _____

Schedule B
By-law _____
Schedule of Ailsa Craig/Nairn/Petty Area-specific Development Charges
2013\$

Service	Residential			Non-residential
	Single & Semi-detached Dwelling	Apartments	Other Multiples	(per sq.ft. of Gross Floor Area)
Roads	981	436	765	0.13
Water	156	69	122	0.02
Wastewater	4,013	1,782	3,128	0.55
Service	5,150	2,287	4,014	0.70

Schedule C
By-law _____
Schedule of Parkhill Area-specific Development Charges
2013\$

Service	Residential			Non-residential
	Single & Semi-detached Dwelling	Apartments	Other Multiples	(per sq.ft. of Gross Floor Area)
Roads	574	255	447	0.08
Water	452	201	352	0.06
Wastewater	3,765	1,672	2,935	0.52
Storm	456	203	355	0.06
Total	5,247	2,330	4,090	0.72