

# 2016

## ASSESSMENT METHODOLOGY

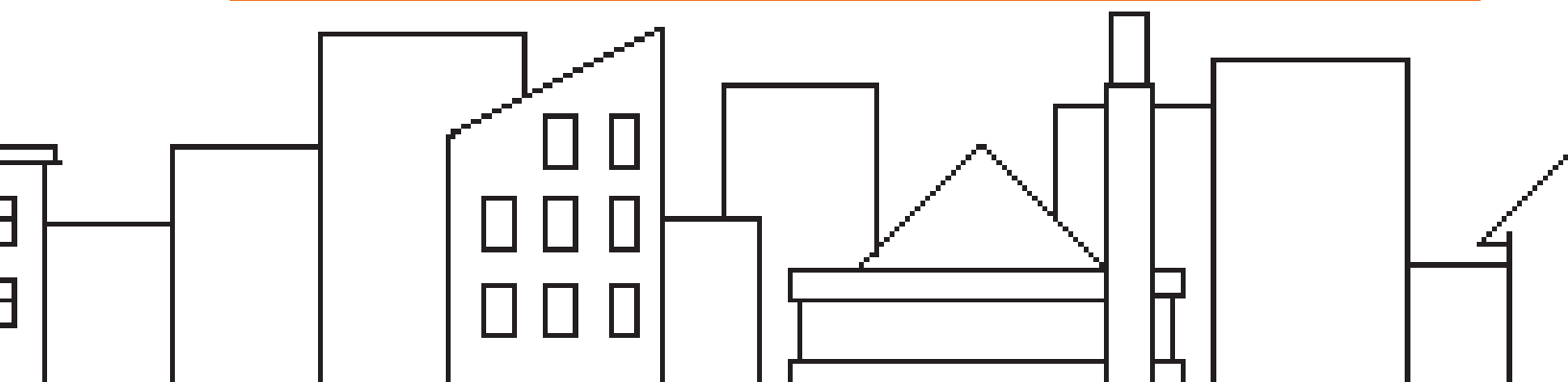
### MULTI-RESIDENTIAL FOUR-PLEX

A summary of the methods used by the City of Edmonton in determining the value of multi-residential four-plex properties in Edmonton for assessment purposes.

*Revised on May 4, 2016. See page 18 for details.*

[edmonton.ca/assessment](http://edmonton.ca/assessment)

Edmonton




## Table of Contents

Scope.....	3
Introduction .....	3
Mass Appraisal .....	5
Valuation Models .....	7
Approaches to Value .....	8
Property Groups.....	8
Sub-Group .....	8
Income Approach (Multi Residential) .....	9
Income Approach Definitions .....	9
Zoning .....	10
Sample Assessment Detail Report .....	12
Variables .....	12
Definitions.....	15
Provincial Quality Standards .....	15
References .....	16
Appendix .....	16
Measure Conversion Chart .....	16
Zone Chart: Multi Residential .....	17
Map .....	18

## Scope

This guide is an aid in explaining how properties are valued for assessment purposes. It sets out the valuation method and procedure to derive market values. The information presented in this guide is aimed at deriving values for a group of properties with similar property characteristics. In some circumstances, not every property's valuation parameters will be covered.

The guide is intended as a tool; it is not intended to replace the assessor's judgment in the valuation process.

This icon  signifies when legislation is quoted.

## Introduction

The Alberta assessment and taxation system is based on the laws outlined in the *Municipal Government Act*, RSA 2000, cM-26 [MGA], and all associated regulations, including, for example *Matters Relating to Assessment and Taxation Regulation*, Alta Reg 220/04 [MRAT].

The MGA requires the assessment of property be prepared using mass appraisal. Properties are valued based on a valuation date of July 1, 2015 and the property's condition of December 31, 2015. Many of these terms are defined in the legislation.



s.284(1)(r) **“property”** means

- (i) a parcel of land
- (ii) an improvement, or
- (iii) a parcel of land and the improvements to it

MGA s.284(1)(r)

s.1(n) **“regulated property”** means

- (i) land in respect of which the valuation standard is agricultural use value,
- (ii) a railway,
- (iii) linear property, or
- (iv) machinery and equipment

MRAT s.1(1)(n)

s.6(1) the **valuation standard** for the land and improvements is market value unless subsection (2)... applies

MRAT s.6(1)

s.1(1)(n) **“market value”** means the amount that a property, as defined in section 284(1)(r), might be expected to realize if it is sold on the open market by a willing seller to a willing buyer

MGA s.1(1)(n)

s.2 An assessment of property based on **market value**

- (a) must be prepared using mass appraisal,
- (b) must be an estimate of the value of the fee simple estate in the property, and
- (c) must reflect typical market conditions for properties similar to that property

MRAT s.2

s.289(2) Each assessment must reflect

- (a) the characteristics and physical condition of the property on **December 31** of the year prior to the year in which a tax is imposed

MGA s.289(2)(a)

s.3 Any assessment prepared in accordance with the Act must be an estimate of the value of a property on **July 1** of the assessment year

MRAT s.3

s.1(k) **“mass appraisal”** means the process of preparing assessments for a group of properties using standard methods and common data and allowing for statistical testing

MRAT s.1(k)

While there are many forms of ownership, the legislation requires the City of Edmonton to assess the fee simple estate. The fee simple estate is unencumbered by any other interest or estate, and subject only to the limitations of government.

***fee simple*** – in land ownership, complete interest in a property subject only to governmental powers

*Glossary for Property Appraisal and Assessment, p. 56*

In summary, a property assessment is:

- an estimate of the property's market value on July 1, 2015
- prepared using mass appraisal
- an estimate of the value of the fee simple estate in the property
- a reflection of the property's condition on December 31, 2015
- prepared assuming typical market conditions on the open market by a willing seller to a willing buyer

## Mass Appraisal

Mass appraisal is the legislated methodology used by the City of Edmonton for valuing individual properties, and involves the following process:

- properties are stratified into groups of comparable property
- common property characteristics are identified for the properties in each group
- a uniform valuation model is created for each property group

***property characteristic***: A feature that helps to identify, tell apart, or describe recognizably, a distinguishing mark or trait

[www.thefreedictionary.com](http://www.thefreedictionary.com)



**27.1(c) “valuation model”** means the representation of the relationship between property characteristics and their value in the real estate marketplace using a mass appraisal process

MRAT s.27.1(c)

The following two quotations indicate how the International Association of Assessing Officers distinguishes between mass appraisal and single-property appraisal:

*... “single-property appraisal is the valuation of a particular property as of a given date; mass appraisal is the valuation of many properties as of a given date, using standard procedures and statistical testing.”*

*... “Also, mass appraisal requires standardized procedures across many properties. Thus, valuation models developed for mass appraisal purposes must represent supply and demand patterns for groups of properties rather than a single property.”*

*Property Appraisal and Assessment Administration, pg.88-89.*

For both mass appraisal and single-property appraisal, the process consists of the following stages:

	Mass Appraisal	Single Appraisal
Definition and Purpose	Mass appraisal is used to determine the assessment base for property taxation in accordance with legislative requirements	The client specifies the nature of the value to be estimated, including rights to be valued, effective date of valuation, and any limiting conditions
Data Collection	Mass appraisal requires a continuing program to maintain a current database of property characteristics and market information.	The extent of data collection is specific to each assignment and depends on the nature of the client’s requirements
Market Analysis	Mass appraisal is predicated on highest and best use	Market analysis includes the analysis of highest and best use
Valuation Model	Valuation procedures are predicated on groups of comparable properties	Subject property is the focus of the valuation. The analysis of comparable properties is generally six or less
Validation	The testing of acceptable analysis and objective criteria	The reliability of the value estimate is more subjective. Acceptability can be judged by the depth of research and analysis of comparable sales

## Valuation Models

A valuation model creates an equation of variables, factors and coefficients that explains the relationship between estimated market value and property characteristics.



s.27.1(a) **“coefficient”** means a number that represents the quantified relationship of each variable to the assessed value of a property when derived through a mass appraisal process

(b) **“factor”** means a property characteristic that contributes to a value of a property;

(d) **“variable”** means a quantitative or qualitative representation of a property characteristic used in a valuation model

*MRAT, s.27.1 (a), (b) and (d)*

s.27.3(1) ...information that is required to be provided...does not include coefficients

*MRAT, s.27.3(1)*

### Valuation Model

- variables are created from property characteristics
- analysis of how variables affect market value
- factors and coefficients are determined
- the resulting valuation models are applied to property characteristics

Depending on the property type multiple regression analysis or other mass appraisal techniques are used to determine variables, factors and coefficients.

**“Multiple Regression Analysis (MRA):** a statistical technique used to analyze data to predict market value (dependent variable) from known values of property characteristics (independent variables)”

*Property Appraisal and Assessment Administration, p. 653*

An assessed value is calculated by applying the appropriate valuation model to individual properties within a group.

## Approaches to Value

The most common approaches to determine market value are the direct sales, income, and cost. Each emphasizes a particular kind of market evidence.

### Direct Sales Approach

Typical market value (or some other characteristic) is determined by referencing comparable sales and other market data. It is often used when sufficient sales or market data is available. It may also be referred to as the Sales Comparison Approach

### Income Approach

This approach considers the typical actions of renters, buyers and sellers when purchasing income-producing properties. This approach estimates the typical market value of a property by determining the present value of the projected income stream. Often used to value rental or leased property

### Cost Approach

Typical market value is calculated by adding the depreciated replacement cost of the improvements to the estimated value of land. It is often used for properties under construction or when there is limited market data available

## Property Groups

The use of a property determines the property groupings and the valuation model applied.



***use:** is the purpose or activity a property is designed, arranged, developed or intended for, or is occupied or maintained as*

*Zoning Bylaw No. 12800, 2014, s. 6.1(108)*

### Multi Residential

Multi-Residential group consists of investment properties with four or more dwelling units, each having one or more rooms accommodating sitting, sleeping, sanitary facilities and most often has a kitchen. Excluded from this group are those still under construction and dormitories.

### Sub-Group

Some property groups have sub-groups based on property characteristics. This guide is for the Four-Plex sub-group.

**Four-Plex** is defined as a building with four dwelling units arranged either back to back or up and down (stacked).

For this property group, the assessment is determined using the income approach. It is the most appropriate method of valuation for Multi Residential: Four-Plex properties in the City of Edmonton.



## Income Approach (Multi Residential)

The income approach is chosen as it best reflects the typical actions of buyers and sellers when purchasing income-producing properties. Ample financial information provided by owners reinforces this decision.

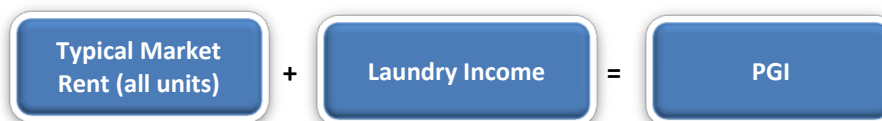
Two models are created to work in tandem. One calculates a Potential Gross Income (PGI) using rental information, and the second calculates a Gross Income Multiplier (GIM) using sale information and the PGI model.

### Income Approach Definitions

To provide a clear understanding of the terms used in the income approach, the following definitions are supplied

**Typical Market Rent** is the rent currently prevailing in the market for properties comparable to the subject property. Actual market rents are used to determine typical market rent. The assessor is not bound by the contractual rent between the landlord and tenant, but must determine rental income on the basis of what is typically paid in the market at the time of valuation.

**Potential Gross Income (PGI)** is the typical market rent that would be collected if the property was fully occupied at the date of valuation. Income data from property owners is analyzed to determine the typical PGI valuation model.



**Typical Vacancy** is the rate allowance for vacant space in the subject property. It is determined for each market area by analyzing reported vacancies from the owner's annual financial statements. Typical vacancy assumes current market conditions and typical management. This is stabilized at 3% for all four-plex properties assessed under the Multi Residential group.

### Laundry Income

A typical laundry income was added to the model-predicted PGI. The typical laundry rates were established through an analysis of market survey rent returns and financial statements from property owners. Laundry income is assessed at the typical value of \$12 per suite per month.

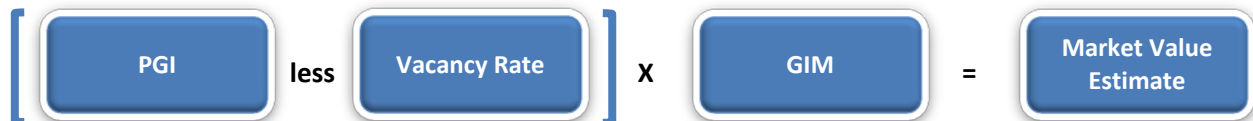
**Gross Income Multiplier (GIM)** expresses the relationship between property value and PGI. It is derived from dividing the market analysis of sales.



Theoretically, a GIM is a product of the factors that determine how much an investor will pay now for future income. An investor will consider the degree of risk involved; the estimated/potential income stream; the expected time the investment will be profitable; and the percentage attributable to operating expenses. These factors are directly related to the type, location, condition, and other attributes of the property.

### Income Approach (GIM)

Two valuation models results PGI and GIM are combined to determine value.



The valuation model is applied to the entire High-rise property group to calculate an assessed value for each property.

### Sales

The City of Edmonton validates all land title transactions (sales). The validation process can include site inspections, interviews with parties involved, a review of land title documents, corporate searches, third party information, and sale validation questionnaires.

The City of Edmonton reviews sales occurring from July 1, 2012 to June 30, 2015 for valuation of Four-Plex property. Time adjustments are applied to sale prices to account for any market fluctuations occurring between the sale date and the legislated valuation date.

**Sale price reflects the condition of a property on the sale date and may not be equal to the assessment.**

### Zoning

The rules and regulations for land development within Edmonton are contained in the Zoning Bylaw, No. 12800.



**s.6.1(111) zone:** is a specific group of listed use classes and development regulations which regulate the use and development of land within specific geographic areas of the City

*Zoning Bylaw No. 12800, 2014, s. 6.1(111)*

Residential land use zones vary in part due to density.



**s.6.1(23) density:** is the number of dwellings on a site expressed as dwellings per hectare when referring to residential related development

*Zoning Bylaw No. 12800, 2014, s. 6.1(23)*

A multi residential zone summary is in the appendix.

Not all property conforms to the zoning use set out in the Zoning Bylaw. In these cases, an effective zoning is applied to reflect the current use of the property. The effective zoning may differ from the actual zoning when the current use differs from the Zoning Bylaw (e.g., a legal nonconforming use).



*643(1) If a development permit has been issued on or before the day on which a land use bylaw or a land use amendment bylaw comes into force in a municipality and the bylaw would make the development in respect of which the permit was issued a non-conforming use or non-conforming building, the development permit continues in effect in spite of the coming into force of the bylaw*

**MGA, s. 643(111)**

## Sample Assessment Detail Report



### Assessment Detail Report ANNUAL REALTY ASSESSMENT DETAILS 2016

Tax Roll Account 9999999 Taxation year 2016 Date of mailing 04-JAN-2016 Date of request 04-JAN-2016 11:29  
Property Address 10010 SAMPLE AVENUE NW Property Assessment \$687,500

#### Property Details

Unit Of Measure METRIC

Legal Plan: 9999A Block: 10 Lot: 10 / Plan: 9999A Block: 10 Lot: 11  
Neighborhood 6610 - RITCHIE  
Effective Zoning RA7 - Low Rise Apartment District  
Actual Zoning RF3 - Low Density Redevelopment District  
Lot Size 787.826 M2 .079 Ha Site Coverage Percent 64 %  
Tax Class / Land Use / Taxable Status  
**OTHER RESIDENTIAL**  
100 % 122 - FOUR-PLEX  
01-JAN-2016 To 31-DEC-2016 100 % FULLY TAXABLE

#### Property Characteristics

Site Attributes			
Traffic Influence	MODERATE	RFI Mail List	MULTI RES
Other Parking	SURFACE		

Building Details							
No.	Market Building Class	%Comp	Condition	Yr Built	Eff Yr Built	Gross Area	Net Area
1	APARTMENT LOW RISE	100	AVERAGE	1971	1971	505.000	505.000
Dwelling Count	1		Building Type		4 PLEX		
Res Gross Bldg Area	505		Gross Area for Multi		505		
2 Bedroom Suite	1		3 Bedroom Suite		3		
Total Res Units	4		Balcony Count		2		
Balcony Type	OPEN		Floors Above-STORIES		2		

#### Income Approach Summary

1	Building Type	4 PLEX
2	Market Area	3
3	Effective Year Built	1971
4	# of Stories	2
6	Condition	AVERAGE
7	Balcony	YES
8	Elevator	NO
9	Commercial	NO
13	2 Bedroom	1
15	3 Bedroom	3
18	Suite Total	4
19	Residential Gross Bldg Area	505
20	Average Suite Size	126
24	PGI (Potential Gross Income)	44,070
25	Vacancy	0.03
26	EPGI (Effective PGI)	42,748
27	GIM (Gross Income Multiplier)	16.09
28	2016 Multi Assessment	687,500
29	Multi Assessment/Suite	171875

#### Factors

#### Variables

Property Assessment 687,500

## Variables

Below is the list of variables that affect the assessment value for 2016.

Potential Gross Income		Gross Income Multiplier
Average Suite Size	Building Type	Building Type
Condition	Effective Year Built	Effective Year Built
Market Area (Location)	River View Suites	Market Area (Location)
Suite Mix		

**Average Suite Size:** The total gross building area (square metres) divided by the number of suites in the building.

**Building Type:** Multi Residential properties are classed into the following building types; Low-Rise, High-Rise, Row-House, Four-Plex

- Low-Rise apartment is defined as a building that has one to four stories above grade, and five or more self-contained suites.
- High-Rise apartment is defined as a building that has five or more stories above grade and five or more self-contained suites.
- Row-House is defined as one of a series of houses, often of similar or identical design, situated side by side and joined by common walls. These developments have 5 or more suites with each unit having its own outside entrance.
- Four-Plex is defined as a building containing four self-contained suites.

**Condition:** Property condition has been rated using the following categories:

### Fair

- below average maintenance;
- discernible deterioration of building components more rapidly than expected for building era;
- deferred maintenance requiring rehabilitation, replacement, or major repairs;
- reduced utility with signs of structural decay.

### Average

- normal deterioration for property era;
- moderate maintenance;
- minor repairs or rehabilitation of some components required;
- within established norm for the era;
- somewhat less attractive.

**Good**

- above average maintenance;
- well maintained with high desirability;
- may have slight deterioration in minor components;
- often components are new or as good as new;
- attractive, high utility, and superior condition.

**Effective Year Built:** Apparent age of a structure with respect to its utility, condition and marketability. It is the adjusted year built taking into account any subsequent new construction, modernization, renovations or replacements. The effective year built may or may not differ from the actual year built depending on its current utility and condition. The following items are considered when adjusting the effective year built of a property assessed under the Multi Residential group:

- Roof
- Windows & doors
- Exterior siding & balconies
- Walls (insulation, vapor barrier, etc.)
- Structural (studs or concrete)
- Foundation
- Electrical
- Plumbing
- HVAC/Mechanical (boilers, hot water tanks, AC, etc.)
- Kitchen cabinets
- Other kitchen components (backsplash, counter tops, sink & faucet)
- Bathroom cabinet, counter, sink
- Sink/bath faucets
- Other bathroom components (toilet, backsplash, shower tiles)
- In-suite flooring, walls, doors, ceiling
- Common area flooring, walls, doors, ceilings

**Market Area (Location):** A geographic area, typically encompassing a group of neighbourhoods, within which the properties are more or less equally subject to a set of one or more economic forces that largely determine the value of the properties in question. The purpose of a market area is for market analysis. These borders are similar to those defined by the CMHC (Canada Mortgage and Housing Corporation) zones.

**River Suites:** The number of units having a view of the river valley.

**Suite Mix:** The number of Bachelor/Studio units, 1 bedroom, 1 bedroom + den, 2 bedroom, 2 bedroom + den, 3 bedroom, 4 bedroom and Penthouse (top floor) units. Bachelor/studio units are those that lack the separating walls found in 1 bedroom units and up, and a den is similar to another bedroom yet lacks a closet and solid door.

## Definitions

**Commercial Component:** Any commercial space type within a multi-residential property that is assessed using a commercial model. For more information on commercial valuation details, please reference the Retail and Retail Plaza methodology guide.

**Foreclosure:** Foreclosure is a legal process by which a lien on a property is enforced. Foreclosure results in the mortgagee becoming titleholder to, or forcing the sale of, the mortgaged property when the mortgagor defaults on the mortgage and does not redeem it.

**Gross Building Area (GBA):** Total floor area of a building, excluding unenclosed areas, measured from the exterior of the walls; includes both superstructure floor area and substructure of basement area.

**Judicial Sale:** (1) A sale made at the direction of a court, by an officer duly appointed and commissioned to sell, as distinguished from a sale by an owner in virtue of his right of property. (2) A court action that enforces a judgment lien by selling property to pay a debt.

**Standardize:** To adjust, for appraisal purposes, reported data such as income and expenses, to remove the effects of non-real-estate factors, such as abnormally good or bad management. Another common term for this adjustment process is normalization.

**Unit of Comparison:** A property as a whole, or some measure of the size of the property (for example, number of suites, number of rooms, or gross building area) used to determine a price per unit.

### Parking:

- **Uncovered (Surface) Parking:** Parking located on ground level or higher that is not covered or has no protection from outside elements.
- **Covered:** Parking located on ground level or higher that is covered and provides some protection from outside elements, but is not fully enclosed and not heated.
- **Heated Parking:** Fully enclosed parking in an aboveground or underground structure that provides much more protection than covered parking. Though typically heated, these parkades protect against the elements to such a degree that even when unheated they provide more warmth than parking outside.

## Provincial Quality Standards

For Four-Plex properties, the City of Edmonton used the income approach to calculate the 2016 assessments. The assessment models, the process utilized, and the results are submitted annually to the Assessment Services Branch of the Department of Municipal Affairs for audit purposes. This audit is used to determine the accuracy of our predictions relative to the market place, and is a direct reflection on the accuracy of our models. The results indicated that our assessments meet Provincial Quality Standards as set out in *MRAT*.

## References

- City of Edmonton. (2014). *Zoning Bylaw No. 12800*. Retrieved from City of Edmonton: [http://webdocs.edmonton.ca/InfraPlan/zoningbylaw/bylaw\\_12800.htm](http://webdocs.edmonton.ca/InfraPlan/zoningbylaw/bylaw_12800.htm)
- Eckert, J., Gloudemans, R., & Almy, R. (1990). *Property Appraisal and Assessment Administration*. Chicago, Illinois: International Association of Assessing Officers.
- Farlex. (2015). Retrieved from The Free Dictionary: [www.thefreedictionary.com](http://www.thefreedictionary.com)
- International Association of Assessing Officers [IAAO]. (1997). *Glossary for Property Appraisal and Assessment*. Chicago IL.
- Province of Alberta. (2012). *Matters Relating to Assessment and Taxation Regulation*. Retrieved from Service Alberta, Queen's Printer: <http://www.qp.alberta.ca>
- Province of Alberta. (2015). *Municipal Government Act*. Edmonton, AB: Queen's Printer.

## Appendix

### Measure Conversion Chart

Imperial to Metric – Length	Imperial to Metric – Area
1 inch (in) = <b>2.54</b> centimetres (cm)	1 square foot (sqft) = <b>0.09290</b> square metre (m <sup>2</sup> )
1 foot (ft) = <b>0.3048</b> metres (m)	1 acre (ac) = <b>4,046.86</b> square metre (m <sup>2</sup> )
Imperial Conversions	1 acre (ac) = <b>0.40469</b> hectares (ha)
1 acre (ac) = <b>43,560</b> square feet (sqft)	Metric Conversions
1 square mile = <b>640</b> acres (ac)	1 square kilometer (sq km) = <b>100</b> hectares (ha)
1 section = <b>640</b> acres (ac)	1 hectare (ha) = <b>10,000</b> square metres (m <sup>2</sup> )



## Zone Chart: Multi Residential

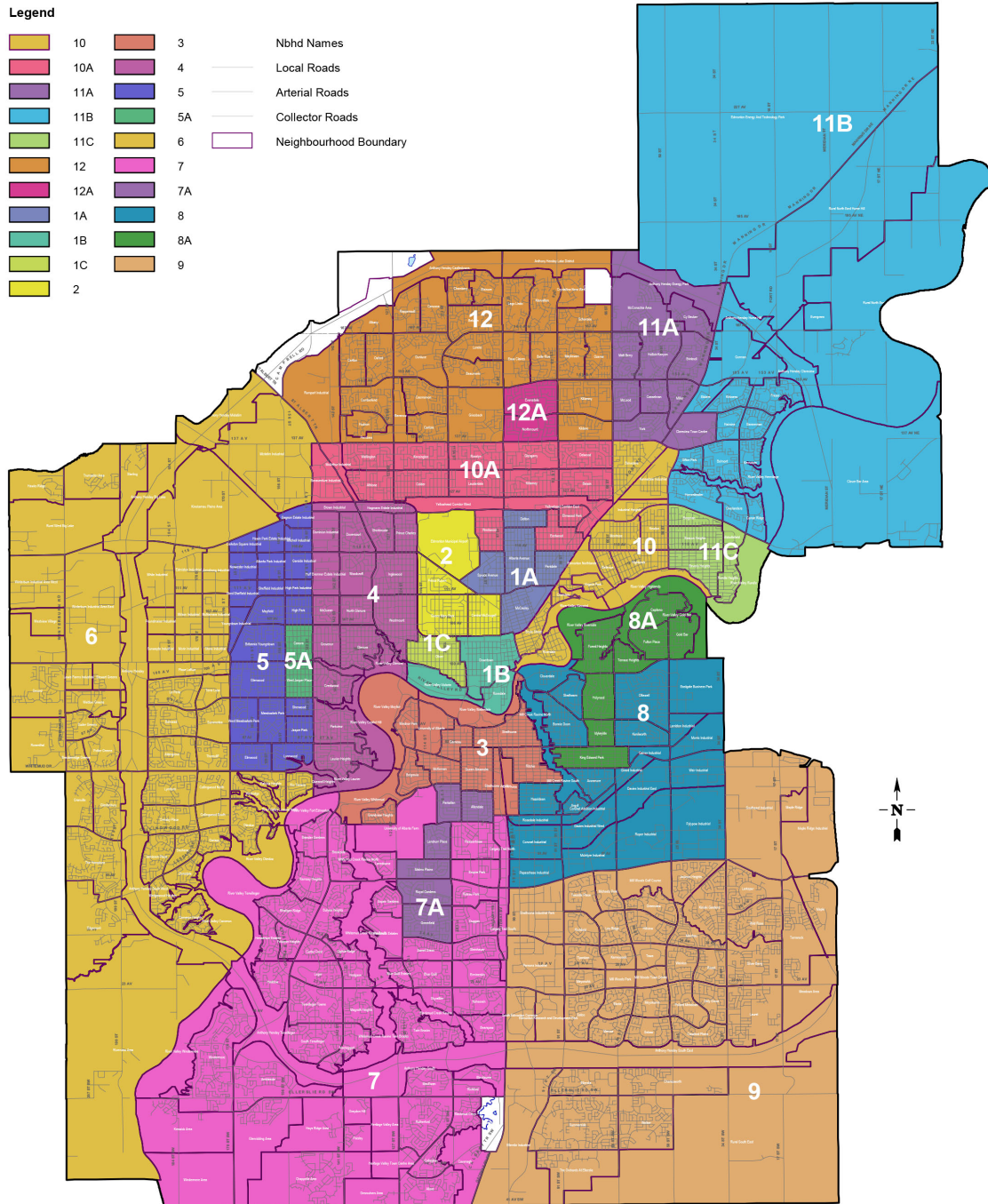
Residential	
RMD	<b>Residential Mixed Dwelling Zone (s.155)</b> is to provide for a range of dwelling types and densities including single detached, semi-detached and row housing
RF5	<b>Row Housing Zone (s.160)</b> s to provide for relatively low to medium density housing, generally referred to as Row Housing
UCRH	<b>Urban Character Row Housing Zone (s.165)</b> is to provide for medium density Row Housing in a manner that is characteristic of urban settings and can include more intensive development
RF6	<b>Medium Density Multiple Family Zone (s.170)</b> is to provide for medium density housing, where some units may not be at Grade
RA7	<b>Low Rise Apartment Zone (s.210)</b> provides for low rise apartment buildings
RA8	<b>Medium Rise Apartment Zone (s.220)</b> provides for medium rise apartment buildings
RA9	<b>High Rise Apartment Zone (s.230)</b> provides for high rise apartment buildings
RR	<b>Rural Residential Zone (s.240)</b> is to provide for single detached residential development of a permanent nature in a rural setting, generally without the provision of the full range of urban utility services
RMU	<b>Mobile Home Zone (s.250)</b> is to provide for Mobile Homes developed within a Mobile Home Park or Mobile Home Subdivision.
RMH	<b>Mobile Home Zone (s.250)</b> is to provide for Mobile Homes developed within a Mobile Home Park or Mobile Home Subdivision.

For additional zone details, refer to the Zoning Bylaw.

## Map

Edmonton

## 2016 Multi Residential Market Areas



Map compiled by: The Applications Team  
Assessment and Taxation, City of Edmonton.  
Effective: January 2016

All rights reserved. This map may not be published, broadcast, redrawn or redistributed in whole or in part without the express written permission of the City of Edmonton, Financial Services Department.

## Revision History

May 4, 2016 – Replaced Assessment Detail report on page 12 with a sample of a four-plex apartment property and replaced the map on page 18 to include neighborhood names.