LOW-RISE CONDOMINIUM MODEL

Revaluation Cycle – January 1, 2025 to December 31, 2028
Base Date: January 1, 2023

City of **Saskatoon**

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Effective Date of Valuation – January 1, 2023

Date of Report – January 1, 2025

Scope of Data and Analysis

Valuation Approach

The appraisal method employed for low-rise apartment condominium properties is the sales comparison approach using the multiple regression analysis technique. Multiple regression analysis (MRA) is an accepted statistical technique used in the mass appraisal of property. MRA determines the statistical relationship between property characteristics and sale prices and is used in determining an estimate of value.

Regression analysis helps one understand how the typical value of the dependent variable changes when any one of the independent variables is varied, while the other independent variables are held fixed. A dependent variable is something that depends on other factors. For assessment valuation purposes, the dependent variable is the predicted adjusted sale prices whereas, independent variables are factors that cause a change in the dependent variable; for example, property characteristics such as age, size and quality. Multiple regression is a statistical technique widely used for prediction and forecasting.

The development of a multiple regression model is determined by utilizing statistical software that simultaneously identifies and analyzes property characteristics of sold properties. Multiple regression determines the coefficient values representing statistically significant property characteristics to establish the multiple regression model. The application of the regression model to the subject property characteristics represents its assessed value. It is important to note that although there may be discussion on the relative value of an individual variable (property characteristic) within the multiple regression model, any changes to the value of one variable will shift or, affect, the value of the other variables. The MRA technique predicts property values on sales price and will always compensate for any deviation of established variables and/or its corresponding value. Another important note is that the coefficient value in the MRA model does not represent the replacement cost or reproduction cost of the variable.

Quality control identifies valid sales for extraction and data cleaning. Once complete, sale prices are adjusted for non-realty components and time to the base date. The sales dataset is analyzed using the multiple regression technique to identify and estimate the relationship between an adjusted sale price and property characteristics (variables). A detailed explanation follows in the 'Development of Low-Rise Condominium Model' section. The multiple regression model for the low-rise condominium group is citywide.

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Low-Rise Condominium Summary

There are 2,572 sales used to establish Assessed Values for low-rise condominiums. A detailed summary of key characteristics for the city overall is listed below:

	Low-Rise Condominium
ASSESSMENT AND SALE STATISTICS	
Community Median Assessment For Properties Sold In Market Analysis Period	$206,443
Community Median Assessment Per Sq Ft For Properties Sold In Market Analysis Period	$220
Community Overall Median Adjusted Sale Price	$201,373
Community Overall Median Adjusted Sale Price Per Sq Ft	$217
Number of Sales Used In Market Analysis	2,572
DESCRIPTIVE STATISTICS (INVENTORY)	
Median Living Area (Sq Ft) of Residences	904
Median Year of Construction of Residences	1,995
Number of Inventory (Oct, 2024)	11,543

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Development of Low-Rise Condominium Model

Introduction

The development of the multiple regression analysis (MRA) model is the major valuation tool in developing assessment values for residential low-rise condominium properties. However, MRA is only one of following six steps within the valuation process.

- Data Extraction
- Data Cleaning
- Non-realty Analysis
- Time Trend Analysis
- Multiple Regression Analysis (MRA)
- Ratio Study

Data Extraction

The primary source of sales information is from Information Services Corporation (ISC). This information is stored in a digital format from which the Assessment Branch extracts sales data for analysis. All relevant variables are captured in this data set that is ready for cleaning.

Data Cleaning

Since it is practically impossible to check every sale, there is a quality control process that helps identify extreme sales. Extreme sales are often referred to as outliers or sales that seem out of context with the majority of the property group and/or neighbourhood. Outliers are identified by querying and assembling sold properties based on some key attributes, such as size, age, and quality. This quality review process helps to identify missing data, re-sales, low-price properties, high price properties and questionable data characteristics. Extreme (outlier) sales are investigated and changes made as required as part of the Assessment Branch quality control process.

Non-realty Analysis

Once the sales dataset has passed the quality control phase, an analysis of non-realty items is undertaken. Assessed values reflect real estate only and should not include the non-realty component of the sale, often referred to as 'chattels'. A chattel is a moveable item of property which is neither land nor permanently attached to land or a building and therefore is not considered real estate. The value of chattels is sourced and quantified from sales verification forms that ask property purchasers whether chattels such as appliances, draperies and/or furniture are included in the sale price and, if so, their approximate value. Based on a sample of this information, an adjustment for non-realty components of the sales is determined. For the 2023 base date, the adjustment for chattels is 1.4 %. Applying the non-realty adjustment to sold properties reduces individual sale prices by 1.4%.

Time Trend Analysis

Sales that have been adjusted for a non-realty component are analyzed for time influences. The real estate market is not always flat. In other words, in a rising market, a purchaser would expect to pay more for a house in 2020 than if it was purchased in 2019. A time trend analysis measures the influence of time on sales price. This is particularly relevant for the current revaluation cycle as the valuation process uses four years of sales, occurring between 2019 and 2022. These sales are examined for time influence and adjusted to reflect the assessment base date of January 1, 2023.

The sales assessment ratio (SAR) technique is used to measure time trends. The result of the time trend analysis shows that the sales prices compared to the current assessed value in low-rise condominium are factored on a monthly basis. For example, from the resulting monthly time adjustment factors for low-rise condominium table below, a January 2019 $350,000 sale price (adjusted for non-realty) would result in a fully adjusted sale price of $363,055 ($350,000 x 1.0373) that would be used in multiple regression analysis.

Sale Month	Time Adjustment Factors	Sale Month	Time Adjustment Factors
Jan-19	1.0373	Jan-21	1.0619
Feb-19	1.0383	Feb-21	1.0630
Mar-19	1.0393	Mar-21	1.0638
Apr-19	1.0403	Apr-21	1.0606
May-19	1.0413	May-21	1.0573
Jun-19	1.0423	Jun-21	1.0541
Jul-19	1.0433	Jul-21	1.0509
Aug-19	1.0443	Aug-21	1.0477
Sep-19	1.0454	Sep-21	1.0446
Oct-19	1.0464	Oct-21	1.0415
Nov-19	1.0474	Nov-21	1.0384
Dec-19	1.0484	Dec-21	1.0353
Jan-20	1.0495	Jan-22	1.0322
Feb-20	1.0505	Feb-22	1.0292
Mar-20	1.0515	Mar-22	1.0262
Apr-20	1.0526	Apr-22	1.0232
May-20	1.0536	May-22	1.0202
Jun-20	1.0546	Jun-22	1.0173
Jul-20	1.0557	Jul-22	1.0143
Aug-20	1.0567	Aug-22	1.0114
Sep-20	1.0577	Sep-22	1.0085
Oct-20	1.0588	Oct-22	1.0057
Nov-20	1.0598	Nov-22	1.0028
Dec-20	1.0609	Dec-22	1.0000

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Multiple Regression Analysis (MRA)

In low-rise condominium, 2,572 valid, fully adjusted sales occurring between January 1st, 2019 and December 31st, 2022 were used in the multiple regression analysis (MRA). MRA estimates relationships between multiple variables simultaneously. For assessment purposes, it is the relationship between adjusted sale prices and property characteristics as determined by multiple regression algorithms. These model variables proved to significantly affect sales price and are represented in the low-rise condominium valuation model below.

Low-Rise Condominium – Multiple Regression Analysis Model

Description	Variable	Coefficient ($)
Constant		109,419.40
Adjustment Based on Effective Age	Age	-11,441.12
Size by Quality per ft²	Size - Low Quality	170.27
	Size - Low/Fair Quality	
	Size - Fair Quality	
	Size - Average Quality	206.03
	Size - Good Quality	294.57
	Size - Very Good Quality	395.03
	Size - Excellent Quality	
Size by Condition per ft²	Condition - Poor	0.00
	Condition - Below Average	
	Condition - Average	
	Condition - Above Average	29.40
	Condition - Good	31.33
	Condition - Very good	
	Condition - Superior	
	Condition - Excellent	
Unit Attributes	Corner Unit	5,855.24
	Floor Level	4,785.61
View Influences	Willows View	39,787.94
	Adjacent Park	25,785.23
	View of Park	13,493.36

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Description	Variable	Coefficient ($)
Improvement Style	Garden style Condo on Main Floor with Basement	40,128.61
Location	10170_Lakewood Suburban Centre	-20,795.11
	10179_Stonebridge	-15,190.40
	10182_University Heights Suburban Centre	-24,784.42
	10185_Willowgrove	-63,418.46
	10186_The Willows	111,063.77
	10187_Rosewood	-59,225.15
	10188_Evergreen	-29,979.24
	10277_Silverspring	-46,669.81
	10350_Adelaide-Churchill(Part)	34,121.60
	10364_Grosvenor Park	-16,234.06
	10374_Nutana Surburban Centre	-43,256.87
	10506_City Park	43,814.39
	10555.01_Buena Vista_01	-22,629.75
	10572_Nutana	37,209.73
	10583_Varsity View	45,704.07
	10611_Hampton Village	-50,728.86
	10624_Blairmore Suburban Centre	-60,068.01
	10638_Kensington	-64,785.27
	10710_Fairhaven	-28,590.45
	10821.02_Meadowgreen_02	-83,728.35
Zoning	RM5	-19,861.64
	RMTN	-32,646.06
	RMTN1	
Project Geographic Adjustment	PROJ_445230790	29,759.64
	PROJ_445231100	-29,740.04
	PROJ_445837050	-34,473.14
	PROJ_455231340	27,286.20
	PROJ_464523200	34,911.76
	PROJ_475733500	55,786.97
	PROJ_475741100	-40,024.21
	PROJ_475825200	42,394.14
	PROJ_475832500	-22,619.39
	PROJ_475833320	-20,591.04
	PROJ_485500050	-34,224.13
	PROJ_495020290	57,660.15

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Description	Variable	Coefficient ($)
	PROJ_505114310	38,433.88
	PROJ_505200900	99,853.20
	PROJ_515035000	99,041.32
	PROJ_515124370	-48,670.13
	PROJ_515130570	-45,823.57
	PROJ_515130910	-41,182.23
	PROJ_515132800	-38,693.52
	PROJ_524925300	-92,286.56
	PROJ_525700150	-15,531.78
	PROJ_535400800	42,281.68
	PROJ_535401710	57,217.72
	PROJ_535705180	18,027.82
	PROJ_535711600	45,045.04
	PROJ_555610100	29,014.15
	PROJ_565201900	-24,861.72
	PROJ_565385000	-34,030.75
	C1.3_495106810_495109630	-31,295.99
	ECS1.2_525404030_525404480	25,761.90
	ESB1.1_475803960_475730000	44,888.46
	NW1.2_484434300_484624260_484509890_484607200	-25,522.82
	US1.4_515228805_515228930_515223280	-48,474.92

Ratio Study

The median assessment to sales ratio (ASR) study is used in measuring the level of mass appraisals. The median is the middle value of the ratios when arrayed in order of magnitude. It divides the ratios into two equal groups, and is therefore only minutely affected by extreme ratios. The closer this value is to 1, the better.

ASR Results for Low-Rise Condominium

The result of the ASR study for the low-rise condominiums is displayed in the table below.

Number of Sales	2,572

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Median Assessment to Sale Price Ratio (ASR)	1.00
Coefficient of Dispersion (COD)	9.8%
Price-Related Differential (PRD)	1.01

The median ASR is 1.00 which is within the I.A.A.O. range of acceptable A.S.R.s between 0.90 and 1.10.

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