# RESIDENTIAL LAND MODEL

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



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Revaluation Cycle – January 1, 2025 to December 31, 2028 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 residential land 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 lot 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, lot characteristics such as location and size. 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 lot characteristics of sold land. Multiple regression determines the coefficient values representing statistically significant lot characteristics to establish the multiple regression model. The application of the regression model to the subject lot characteristics represents its assessed value. It is important to note that although there may be discussion on the relative value of an individual variable (lot 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.



# **Residential Land Summary**

There are 1,811 sales used to establish Assessed Values for residential land. A detailed summary of key characteristics for the city overall is listed below:

	High-Rise Condominium
ASSESSMENT AND SALE STATISTICS	
Community Median Assessment For Lots Sold In Market Analysis Period	\$143,682
Community Median Assessment Per Sq Ft For Lots Sold In Market Analysis Period	\$33
Community Overall Median Adjusted Sale Price	\$137,900
Community Overall Median Adjusted Sale Price Per Sq Ft	\$32
Number of Sales Used In Market Analysis	1,811
DESCRIPTIVE STATISTICS (INVENTORY)	
Median Parcel Area (Sq Ft) of Lots	4,509
Number of Inventory (Oct, 2024)	2,137
Saskato	on



# **Multiple Regression Analysis (MRA)**

In residential land, 1,811 valid, fully adjusted sales occurring between January 1<sup>st</sup>, 2019 and December 31<sup>st</sup>, 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 lot characteristics as determined by multiple regression algorithms. These model variables proved to significantly affect sales price and are represented in the residential land valuation model below.

# **Residential Land – Multiple Regression Analysis Model**

Description	Variable	Coefficient (\$)	
Constant		33.46	
	Arterial Road	-3.75	
	Backing Arterial		
Site	Backing Highway	-5.75	
Influences	Railway		
	Major Collector	2 00	
	Minor Collector	2.00	
	Backing Greenspace		
	Backing Park	3.07	
View Influences	Backing Lake		
	Backing River	River 3.97	
	Fronting Lake		
	Fronting River		
Zoning	R1A		
	NBHD_10187_Rosewood	-1.57	
	NBHD_10188_Evergreen	-1.92	
Location	NBHD_10171_North East Development Area -0.71   NBHD_10189_Aspen Ridge -0.71		
			NBHD_10609_Dundonald
	NBHD_10601_Agro Industrial	-0.57	
	NBHD_10627_Parkridge	-6.26	
		NBHD_10638_Kensington	-6.83
	NBHD_10637_Elk Point		

#### Market Area 1 & 6



## Market Area 2, 3 & 4

Description	Variable	Coefficient	
		(\$)	
Constant		53.64	
Site Influences	Arterial Road		
	Backing Arterial	-6.01	
	Backing Highway	-0.01	
	Railway		
	Major Collector	-3 20	
	Minor Collector	0.20	
	Backing Greenspace	5.88	
	Backing Park	0.00	
View	Backing Lake		
Influences	Backing River	6 37	
	Fronting Lake	- 0.37	
	Fronting River		
	NBHD_10350_Adelaide-Churchill(Part)		
	NBHD_10366_Holliston		
	NBHD_10452_Avalon(Part)	-14.70	
	NBHD_10461_Exhibition		
	NBHD_10462.01_Forest Grove_01		
	NBHD_10480.01_Sutherland_01		
	NBHD_10462.02_Forest Grove Part		
	NBHD_10216_Lawson Heights		
Location	NBHD_10217_Lawson Heights Suburban Centre	-20.85	
Location	NBHD_10260_Erindale		
	NBHD_10267_Lakeridge		
	NBHD_10269_Lakeview		
	NBHD_10277_Silverspring		
	NBHD_10353_Breevort Park		
	NBHD_10359_Eastview		
	NBHD_10373_Nutana Park-14.78		
	NBHD_10374_Nutana Suburban Centre		
	NBHD_10384_Wildwood		



#### Market Area 5

Description	Variable	Coefficient
Description		(\$)
Constant		44.89
	Arterial Road	-5.03
	Backing Arterial	
Site	Backing Highway	
Influences	Railway	
	Major Collector	-2.68
	Minor Collector	
	Backing Greenspace	4.92
	Backing Park	
View	Backing Lake	5.33
Influences	Backing River	
	Fronting Lake	
	Fronting River	
	NBHD_10506_City_Park	0.47
	NBHD_10505_CBD	0.47
Location	NBHD_10555.02_Buena_Vista	3 30
Location	NBHD_10555.01_Buena Vista Part	5.52
	NBHD_10583_Varsity_View	14.20
	NBHD_10572_Nutana	38.48
	AIRD_5	
	BOTTOMLEY_5	
Geographic Adjustment	COLONY_5	10.65
	ELLIOTT_5	10.05
	OSLER_5	
	TEMPERAN_5	
	SASK_CR_E	
	SASK_CRE_W	22.54
	SPADINA_4	
	SPADINA_5	



#### Market Area 7 & 8

Description	Variable	Coefficient	
Description	Vallabie	(\$)	
Constant		18.67	
	Arterial Road		
	Backing Arterial	2.00	
Site Influences	Backing Highway	-2.09	
	Railway		
	Major Collector	-1.11	
	Minor Collector		
View	Backing Greenspace	2.05	
	Backing Park		
	Backing Lake		
Influences	Backing River	2.22	
	Fronting Lake 2.22		
	Fronting River		
Location	NBHD_10831_Riversdale	8.24	
	NBHD_10812_Holiday_Park		
Geographic	Case Carro CILY O	0.00	
Adjustment	Geo Core	-8.02	

# **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 Residential Land

	Market Area 1 & 6	Market Area 2, 3 & 4	Market Area 5	Market Area 7 & 8
Number of Sales	1,599	50	119	43
Median Assessment to Sale Price Ratio (ASR)	1.00	0.99	1.00	1.00
Coefficient of Dispersion (COD)	6.9%	13.7%	14.0%	23.4%

The result of the ASR study for the residential land is displayed in the table below.

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.



