2024 ASSESSMENT METHODOLOGY INDUSTRIAL WAREHOUSES

A summary of the methods used by the City of Edmonton in determining the value of industrial warehouse properties in Edmonton for assessment purposes.

Edmonton

edmonton.ca/assessment

Table of Contents

Scope	3
Introduction	3
Mass Appraisal Valuation Model	5 7
Property Groups Sub-Group Approaches to Value Direct Comparison Approach Zoning	7 7 8 8 9
VariablesMain floor total areaIndustrial market areaSite coverageEffective year builtTraffic influenceConditionMain floor finished areaUpper floor finished area	10 10 11 11 11 12 13 13
AdjustmentsIrregular lot shapeTopographyAccess to lotFunctional obsolescenceIndustrial adjustmentEasementContaminationAdjustment amounts	13 13 13 13 13 13 13 14 14 14
Definitions	15
Sample Industrial Warehouse Assessment Detail Report	16
Methods to Adjust Comparables Quantitative Adjustments Qualitative Analysis References	18 18 19 20

Appendix	21
Time Adjustment Chart	25
Zone Summary	26

Scope

This guide explains how industrial warehouse properties are valued for assessment purposes. The guide is intended as a tool and complements the assessor's judgment in the valuation process. **Valuation Date** refers to the legislated date of July 1, 2023.

Introduction

Property assessments in the City of Edmonton are prepared in accordance with the requirements of the Municipal Government Act, R.S.A. 2000, c. M-26, (hereinafter "MGA") and the *Matters Relating to Assessment and Taxation Regulation, 2018*, Alta Reg 203/17, (hereinafter "MRAT"). The *MRAT* regulation establishes the valuation standard to be used, defines the procedures to be applied, and proposes objectives for the quality to be achieved in the preparation of assessments. The legislation requires the municipality to prepare assessments that represent market value by application of the mass appraisal process. All assessments are expected to meet quality standards prescribed by the province in the MRAT regulation.

Property assessments represent:

- an estimate of the value;
- of the fee simple estate in the property;
- as the property existed on December 31, 2023;
- reflecting typical market conditions;
- as if the property had been sold on July 1, 2023;
- on the open market;
- from a willing seller to a willing buyer.

The assessment is an estimate of the value that would result when those specific, defined conditions are met.

The legislation requires the City of Edmonton to assess the fee simple estate.

"Fee simple interest [is] absolute ownership unencumbered by any other interest or estate... leased fee interest [is] the ownership interest held by the lessor, which includes the right to the contract rent specified in the lease plus the reversionary right when the lease expires... leasehold interest [is] the interest held by the lessee (the tenant or renter) through a lease conveying the rights of use and occupancy for a stated term under certain conditions." *Appraisal Institute of Canada, The Appraisal of Real Estate Third Canadian Edition,*

Vancouver, Canada, 2010, page 6.4

Both *market value* and *property*, along with additional terms are defined in *MGA* and *MRAT* :

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(k) "regulated property" means (i) land in respect of which the valuation standard is agricultural use value, (ii) designated industrial property, or (iii) machinery and equipment MRAT s. 1(k)s.9(1) the **valuation standard** for the land and improvements is market value unless subsection (2)... applies *MRAT* s.9(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.5 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.5 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.6 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.6 s.1(g) "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(g)

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 properties
- common property characteristics are identified for the properties in each group
- a uniform valuation model is created for each property group
- 31(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.31(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 Model

A valuation model creates an equation of variables, factors and coefficients that explains the relationship between estimated market value and property characteristics. An assessed value is then calculated by applying the appropriate valuation model to individual properties within a property type.

s31	(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.31 (a), (b) and (d)
s.33	Information prescribed does not include coefficients
	MRAT , s.33(3)

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

Property Groups

Industrial

A property is included in the industrial inventory based on zoning and highest and best use. Industrial buildings are typically configured with office and warehouse space with overhead doors. As well, based on the principles of urban economics, properties of similar use typically cluster together, as the cluster attracts more suppliers and customers than a single firm could achieve alone.

Sub-Group

The Industrial property group is divided into two sub-groups- industrial warehouses and industrial condominiums. This guide is for the Industrial Warehouse sub-group.

Industrial warehouses primarily support uses of storage, light manufacturing, and product distribution. They can be constructed of different materials such as wood, concrete, or metal, and can be single or multiple tenants.

Copyright of this material and content is owned by the City of Edmonton and none of the content and material may be copied, reproduced, posted or transmitted in any form without the prior written consent of the City of Edmonton, unless otherwise being used in accordance with Section 299 and 300 of the *Municipal Government Act*, RSA 2000, c M-26.

Industrial condominiums are legal condominium units within a warehouse building. Typically, the space is used for storage, light manufacturing and product distribution. They can be constructed of different materials such as wood, concrete, or metal.

Special purpose properties typically have limited utility and marketability other than for its original use. Often these properties are purpose-built with limited alternative uses. Typically, a special purpose property needs significant investment to be converted to an alternative use, making most conversions financially infeasible. With special purpose properties, it is the property itself, not the use, that is typically unique. Special purpose properties may include churches, schools, hospitals, manufacturing plants, correctional facilities, museums, legislative buildings and recreational facilities.

Approaches to Value

The approaches to determine market value are the direct comparison, income, and cost approaches.

Direct Comparison 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.
lncome 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.

Direct Comparison Approach

For this property group, the assessment is determined using the direct comparison approach. It is the most appropriate method of valuation for industrial warehouses in the City of Edmonton because it mirrors the actions of buyers and sellers in the marketplace and sufficient sales data exists in order to derive reliable market estimates.

Support for the direct comparison approach comes from several reputable sources, for example:

This approach is usually the preferred approach for estimating values for residential and other property types with adequate sales.

IAAO, 2013, sec.4.3

Unit of Comparison

The most common unit of comparison for similar industrial warehouse properties is a \$/square foot rate.

For Industrial properties a \$/square foot rate that combines or "blends" both the \$/square foot rate of *total area* (which includes 2nd floor space), as well as the \$/square foot of *main floor area* only, is the most accurate way to compare the unit of value.

If instead the \$/square foot rate, calculated using the *total area*, were used on its own for comparison, the less valuable 2nd floor space would dilute the \$/square foot rate and result in a misleading comparison. Conversely, by relying on the \$/square foot rate using only the *main floor area* for comparison, the 2nd floor space is excluded entirely and inflates the \$/square foot rate resulting in an equally misleading comparison.

Only by blending the two \$/square foot rates described above is the unit of comparison useful for comparing properties with and without 2nd floor space.

The blended \$/square foot rate is therefore the most accurate unit of comparison to be used when comparing Industrial properties.

Blended \$/Square foot rate = the average of \$/square foot *main* rate and \$/square foot *total* rate.

Cost buildings

For parcels valued on using the direct sales approach containing multiple buildings that include one or more buildings valued on the cost approach, the size of the cost building(s) is not included in the \$/square foot calculation. This is due to the fact that cost buildings are typically worth less per square foot than buildings valued on the direct sales approach, and therefore including cost building sizes in the \$/square foot calculation would dilute the \$/square foot

For properties with very new and/or very large cost buildings that have a resulting large impact on the value however, the value of these cost buildings should be removed from the value of the parcel when producing a \$/square foot rate for comparison purposes to properties without high value cost buildings. If the value of these cost buildings are not removed from the value the \$/square foot for these properties will be inflated and misleading.

Sales

Sales information is received from Land Titles. Sales are validated. Validation may include site inspections, interviews with parties involved, a review of land title documents, corporate searches, third party information, and sale validation questionnaires. *Sale price reflects the condition of a property on the sale date and may not be equal to the assessed value.*

The City of Edmonton used 322 sales of industrial warehouse properties occurring from July 1, 2018 to June 30, 2023 for 2024 valuation. Time adjustments are applied to sale prices to account for any market fluctuations between the sale date and the legislated valuation date. Through the review of

Copyright of this material and content is owned by the City of Edmonton and none of the content and material may be copied, reproduced, posted or transmitted in any form without the prior written consent of the City of Edmonton, unless otherwise being used in accordance with Section 299 and 300 of the *Municipal Government Act*, RSA 2000, c M-26.

sales, the collective actions of buyers and sellers in the marketplace are analyzed to determine the contributory value of specific property characteristics on market value. Once these values have been determined through the mass appraisal process, they are applied to the inventory to estimate the market value. Value estimates were calculated using multiple regression analysis, which replicates the forces of supply and demand in the marketplace.

See the appendix for the Time Adjustment Chart.

Zoning

Zoning regulates the use and development of a property and is set by the Edmonton Zoning Bylaw No. 12800.

s.6.123 **zone:** a specific group of listed Uses and Development Regulations which regulate the Use and Development of land within specific geographic areas of the City... **Zoning Bylaw No. 12800**, 2017, s. 6.123

See the appendix for the Zone Summary. For further information see City of Edmonton Zoning Bylaw No. 12800 available online at <u>edmonton.ca</u>.

The actual zoning of a property may affect the property's classification; however, not all property conforms to the zoning set out in the Zoning Bylaw. In these cases, an effective zoning is applied to reflect the current use and development 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 nonconforming use or nonconforming building, the development permit continues in effect in spite of the coming into force of the bylaw.

MGA, s.643(1)

In cases where a legal non-conforming use is discontinued for six (6) or more months, any future use must conform to the Zoning Bylaw.

643(2) A non-conforming use of land or a building may be continued but if that use is discontinued for a period of 6 consecutive months or more, any future use of the land or building must conform with the land use bylaw then in effect.

MGA, s.643(2)

The actual and effective zoning as of December 31, 2023 applies to the assessment for the 2024 tax year. The new Zoning Bylaw (Charter Bylaw 20001) and city-wide rezoning (Charter Bylaw 21001) will come into effect on January 1, 2024 and will be reflected in the assessment for the 2025 tax year.

Copyright of this material and content is owned by the City of Edmonton and none of the content and material may be copied, reproduced, posted or transmitted in any form without the prior written consent of the City of Edmonton, unless otherwise being used in accordance with Section 299 and 300 of the *Municipal Government Act*, RSA 2000, c M-26.

Variables

Not all variables affect market value. Below is the list of variables that affect the assessment value for 2024. The variables are listed alphabetically and not listed in order of their impact on market value.

Condition	Effective year built
Industrial market area	Main floor total area
Main floor finished area	Traffic influence (Yes or No)
Site coverage	Upper floor finished area

All of the above variables were found to affect the assessment value for 2024. The variables work together and the significance of any of the above variables is relative to the characteristics of each property.

• In addition to the variables found to affect value, the following variables were tested to determine their impact on value: wall height, construction type, zoning, tenancy, and land use. These variables were not found to significantly affect value. For other variables, there is insufficient data to test their significance to affect value.

Main floor total area

Based on the exterior measurements of the footprint of the building. Economies of scale dictate that larger buildings trade for a lower unit of comparison than smaller buildings. The main floor area of a multi-building industrial warehouse property is based on the exterior measurement of the accumulated main floor areas of each building valued using the direct sales approach. The Area of the buildings valued on the cost approach, see below, are excluded from the main floor area.

Industrial market area

Industrial warehouse market areas are geographic areas defined using location boundaries. See enclosed maps in the appendix titled 2024 Industrial Warehouse Market Area Groups. For 2024, the following market areas were grouped together:

• Market Area 2 and Market Area 3

In sequence of desirability, the market areas are as follows:

- Market Area 1 Downtown
- Market Area 2 & 3 South/North Edmonton
- Market Area 4 Southeast and Clover Bar
- Market Area 5 Yellowhead Corridor
- Market Area 6 Winterburn

Site coverage

(total main floor area of the property ÷ lot size): the relationship between the main floor area of buildings not valued using the cost approach and lot size. It is expressed as a percentage. Typical site coverage is 33%. Lower site coverage indicates that a property has more land which typically increases the property's market desirability. Reasons for the increased desirability include potential

Copyright of this material and content is owned by the City of Edmonton and none of the content and material may be copied, reproduced, posted or transmitted in any form without the prior written consent of the City of Edmonton, unless otherwise being used in accordance with Section 299 and 300 of the *Municipal Government Act*, RSA 2000, c M-26.

future expansion of the improvements or subdivision of the parcel, improved storage capacity, functionality and access. By contrast, higher site coverage indicates that a property has less land which typically results in limited development potential.

It is not uncommon for industrial properties valued on the direct comparison approach to have an additional building on the property valued on the cost approach. Typically, a cost building is of lower quality than the main building(s) and therefore a lower assessment per square foot than the main building(s) is warranted. These are referred to as "cost buildings" and are valued using the Marshall & Swift Manual, which applies the depreciated replacement cost new.

Cost buildings typically include temporary structures such as arch rib fabric buildings, relocatable office trailers, unheated sheds, and storage buildings. Cost buildings may also lack heating, office finish, electricity, or flooring.

The floor area of any cost building on site is excluded from the main floor area when calculating site coverage.

Effective year built

The chronological age of a building, adjusted to reflect an addition or significant renovation that extends the improvement's remaining economic life. The exterior components that when replaced or extensively renovated affect the remaining economic life of a building, including the roof, the building envelope (windows and doors, exterior siding, walls including insulation and vapor barrier, and other structural components), the foundation, and mechanical components (electrical, plumbing and HVAC). The effective age of a building can also be altered due to additions. The effective year built of a multi-building industrial warehouse property is calculated using the weighted average effective year built based on the building size of the individual buildings on the property.

Traffic influence

This attribute is only applied to properties that have access to a traffic influence. Access is having direct entry to the property from public roads including service roads.

The level of influence is based upon the annual weekday traffic volume counts as reported by the City of Edmonton Transportation Planning Branch. The 2019 Average Annual Weekday Traffic Volumes Report is accessible on the City website. There is a spreadsheet link below that outlines the traffic volumes on public roads for each year from 2014 to 2020. This is a shared public document with viewer access only.

2019 Average Annual Weekday Traffic Volumes Report

https://docs.google.com/spreadsheets/d/1_W1_jGlAwSFDgRQmvakx4wJ8si

Definitions for each individual traffic attribute are as follows:

• None

Roads with the recorded traffic flow of less than 1,500 vehicles per day

- Minor
 - Roads with the recorded traffic flow of 1,500-5,000 vehicles per day
- Moderate
 - Roads with the recorded traffic flow of 5,001-15,000 vehicles per day.
- Major

Roads with the recorded traffic flow of 15,001-50,000 vehicles per day (for example, 50th Street, 170th Street or 99th Street).

Copyright of this material and content is owned by the City of Edmonton and none of the content and material may be copied, reproduced, posted or transmitted in any form without the prior written consent of the City of Edmonton, unless otherwise being used in accordance with Section 299 and 300 of the *Municipal Government Act*, RSA 2000, c M-26.

• Extreme

Roads with the recorded traffic flow of more than 50,000 vehicles per day (for example, Whitemud Drive or Yellowhead Trail)

Accounts with Yes Traffic get a traffic attribute applied:

YES	• Major Traffic Roads with recorded traffic flows of 15,000 - 50,000 vehicles per day e.g. 50th Street, 170th Street, 99th Street.
NO	None, Minor, Moderate, Extreme Traffic.

Extreme traffic has been grouped with no traffic adjustment.

Condition

The condition of a building is rated using the following categories, generally described as:

- Poor:
 - borderline derelict;
 - far below average maintenance;
 - numerous components need immediate repair.

Fair:

- below average maintenance;
- deferred maintenance requiring rehabilitation, replacement, or major repairs;
- reduced utility with signs of structural decay.

Average:

- average maintenance;
- minor repairs or rehabilitation of some components required;
- within established norm for the era;

Good:

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

The condition of a multi-building industrial warehouse property is calculated using the weighted average condition based on the building size of the individual buildings on the property.

Main floor finished area

Is based on the exterior measurements of the finished area and generally consists of finished flooring, ceiling, forced air HVAC systems, and windows. This finished space is valued at a premium in relation to unfinished area.

Upper floor finished area

Is typically based on the exterior measurements of an upper floor area and generally consists of finished flooring, ceiling, forced air HVAC systems, and windows. This also includes any finished

Copyright of this material and content is owned by the City of Edmonton and none of the content and material may be copied, reproduced, posted or transmitted in any form without the prior written consent of the City of Edmonton, unless otherwise being used in accordance with Section 299 and 300 of the *Municipal Government Act*, RSA 2000, c M-26.

basement area. The contributory value of the upper floor finished area and the basement finished area is less than that of the main floor finished area.

Adjustments

Adjustments may be applied to properties with atypical influences on a property specific basis to recognize their effect on value. Adjustments include but are not limited to:

Irregular lot shape

An adjustment may be applied if the shape of a property hinders the developability of the property where it cannot be reasonably developed to a site coverage of 33%.

Topography

Adverse topography indicates a property has certain topographical constraints that are not typical for the area and negatively affects the overall suitability of the land for development. These constraints may include, but are not limited to, significant slopes or wetland subsoil conditions resulting from sloughs, ponds and natural drainage onto the property.

Access to lot

Properties that do not have reasonable future accessibility to a city roadway.

Functional obsolescence

An adjustment is only applied if there is a flaw in the structure, materials, or design that diminishes the function, utility, and value of the improvement.

Industrial adjustment

An adjustment applied for a unique property specific issue that negatively affects the property.

Easement

Is a legal encumbrance registered against the title of the property allowing the right to use and/or enter onto the real property of another without possessing it. Easements may include easements for access, locating utilities, or otherwise limiting or precluding the use of the area subject to the easement.

Contamination

Contamination refers to a property that has been affected by environmental contamination which includes adverse conditions resulting from the release of hazardous substances into the surface water, groundwater, or soil.

Adjustment Amounts

Adjustments may be made in the amount of (+/-):

- Minor 5%
- Moderate 10%
- Major 15%
- Extreme 20%

*Adjustments may also be made using percentages other than those identified above. For example a contamination adjustment may be based on a cost to cure amount set out in a phase 3 engineering report.

Definitions

Actual Zoning is set by the *Edmonton Zoning Bylaw 12800* and regulates the use and development of a parcel. This report can be found on the City of Edmonton website at <u>edmonton.ca</u>.

Effective Zoning: Effective zoning is an internal coding applied to reflect the current use and/or development potential of a property. Effective zoning will generally reflect the actual zoning of a property, but may differ on properties with a legal non-conforming use, Direct Control zoning or in other limited circumstances.

Property Use (Land Use Code) defines the use of a property. Property Use also includes a percentage representing the assessed value of the area for each use relative to the total assessed value of the property. Industrial Improved properties may have the following LUCs:

Description SMALL WAREHOUSE MEDIUM WAREHOUSE LARGE WAREHOUSE

Sample Industrial Warehouse Assessment Detail Report

2024 Property Assessment Detail Report

Assessment and Taxation

Account 1000000

January 14, 2024
\$1,391,500
January 16, 2024
1008 100 AVENUE NW
Plan: 5823090 Block: 3 Lot: 1A
IB - Industrial Business District
IB - Industrial Business District
Monamara Industrial
10000.267
NON-RESIDENTIAL
100% Small warehouse
January 1 - December 31, 2024 FULLY TAXABLE
IMPERIAL (feet, square feet)

Factors Used to Calculate Your 2024 Assessed Value

		MARKET VALUE APPROACH DIRECT COMPARISON
VARIABLE	FACTOR	TYPE
Industrial market area	3	Account
Main floor total area	5,000	Building - 1
Main floor finished area	1,500	Building - 1
Total building area	5,000	Building - 1
Effective year built	1994	Building - 1
Condition	AVERAGE	Building - 1
Traffic influence	YES	Account
Shape influence	N	Account
Topography influence	N	Account
Access influence	N	Account
Functional obsolescence influence	N	Account

Legat. This information is collected for property assessment purposes only. While the City of Edmontion provides this information in good faith, it does not warrant, oovenant, or guarantee the completeness and accuracy of this information. The City does not assume responsibility non-accept any labelity entangement and warrant, or explanation is maritained on a regular basis and reflects the contents of the assessment, per the date on this document. This information is proprietary and may not be reproduced without consent than the City of Edmontan.

Visit myproperty.edmonton.ca • email assessment@edmonton.ca • call 311 (780-442-5311)

Copyright of this material and content is owned by the City of Edmonton and none of the content and material may be copied, reproduced, posted or transmitted in any form without the prior written consent of the City of Edmonton, unless otherwise being used in accordance with Section 299 and 300 of the *Municipal Government Act*, RSA 2000, c M-26.



Edmonton



Account

23.25

Site coverage (%)

Legal: This information is collected for property assessment purposes only. While the City of Editorian provides this information in good faith, it does not warrant, covenant, or guarantee the completeness and accuracy of this information. The City does not warrant examples the completeness and reflects the contents of the assessment, per the date on this document. This information is proprietary and may not be reproduced without consent them the City of Editorian.

Visit myproperty.edmonton.ca • email assessment@edmonton.ca • call 311 (780-442-5311)

"**Type**" as indicated above specifies whether the variable applies to the account, unit, site or a specific building:

- Account An adjustment that is applied to a property account. A property account includes the parcel of land and any improvements. .
- Unit An adjustment that is applied to a condominium unit.
- Site An adjustment that is applied to the parcel of land only.
- Building An adjustment that is applied to the improvement only.

Methods to Adjust Comparables

There are two types of techniques for reconciliation: **quantitative** and **qualitative**.

Quantitative Adjustments

Each characteristic of a property can be measured or quantified by a mathematical expression and adjusted for.

Several techniques are available to quantify adjustments to the sale prices of comparable properties: data analysis techniques such as paired data analysis, grouped data analysis, and secondary data analysis, statistical analysis, including graphic analysis...

(AIC, 2010, p. 14.2)

In the direct comparison approach, the best comparables are those sales that require the least absolute adjustment.

(AIC, 1995, p. 245).

Quantitative adjustments involve adjusting a known value (sale price for example) by adding or subtracting an amount that a given characteristic adds to or subtracts from that value. A quantitative adjustment should be made for each characteristic that differs between the subject property and the comparable property.

Due to the legislative requirement to use mass appraisal, the City has used statistical analysis to determine annual assessments.

"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.

MRAT s.31(a)

The City is not required to disclose the coefficients. In the absence of quantitative adjustments, an alternative technique is qualitative analysis.

Qualitative Analysis

Each comparable property is compared with the subject property on an overall basis. In a qualitative analysis, comparable properties are identified as inferior, similar, or superior overall to the subject property in order to bracket the probable value range of the subject property.

When a sale property is considered to offer important market evidence but finding the means to make quantitative adjustments is lacking, the appraiser may turn to other major direct comparison techniques, qualitative analysis.

(AIC, 2005, p. 19.10)

Qualitative analysis recognizes ... the difficulty in expressing adjustments with mathematical precision.

(AIC, 2010, p. 14.6)

...reliable results can usually be obtained by bracketing the subject between comparables that are superior and inferior to it.

(AIC, 2010, p. 14.7)

If one or two comparable properties require fewer total adjustments than the other comparable transactions, an appraiser may attribute greater accuracy and give more weight to the value indications obtained from these transactions, particularly if the magnitude of the adjustments is approximately the same.

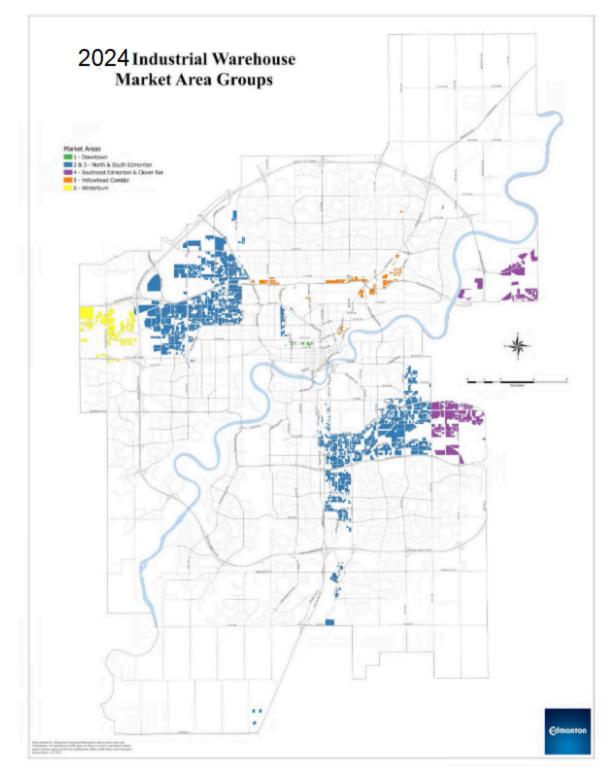
(AIC, 2010, p. 13.16)

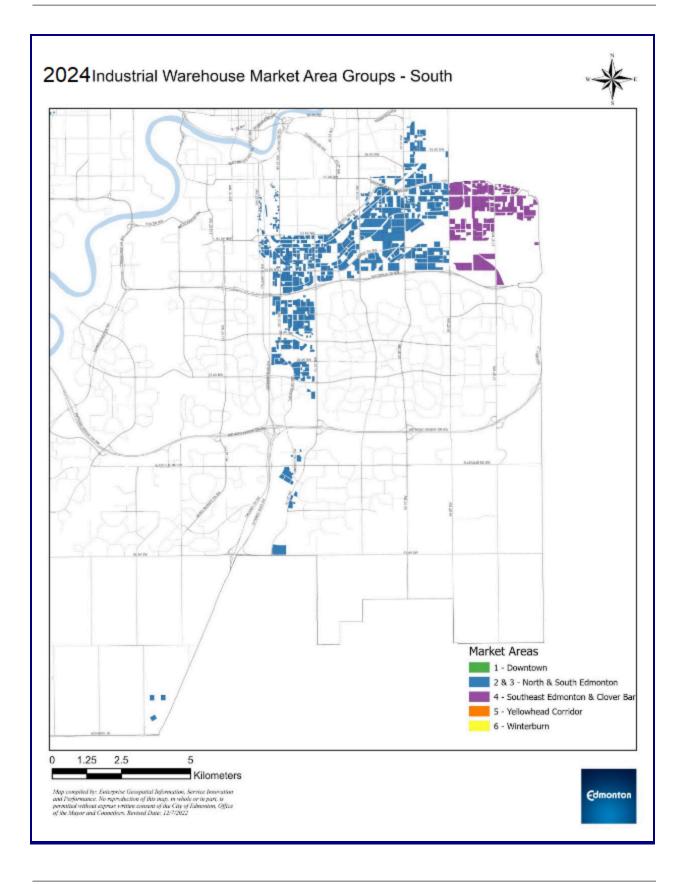
References

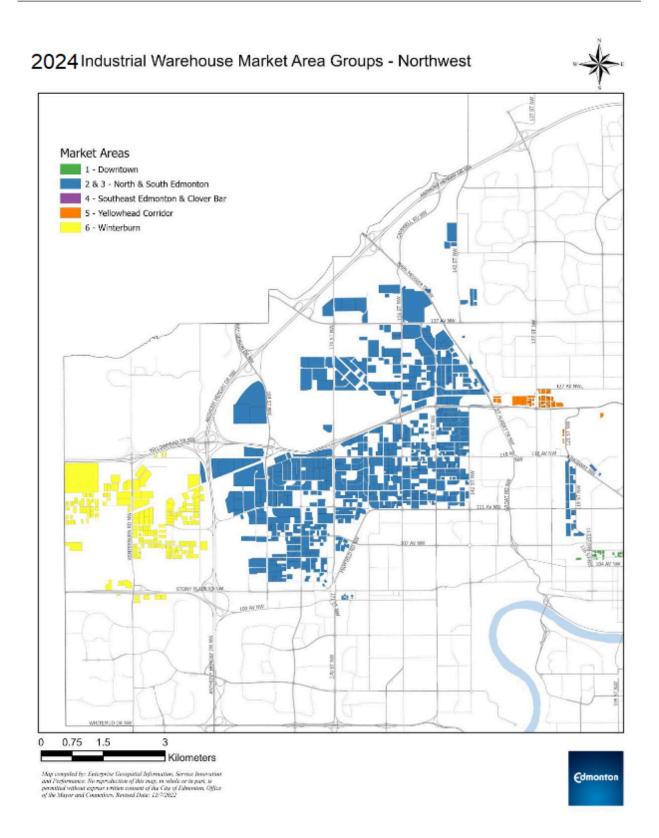
Appraisal Institute of Canada (1995). Basics of Real Estate Appraising Fourth Edition. Winnipeg, Canada.

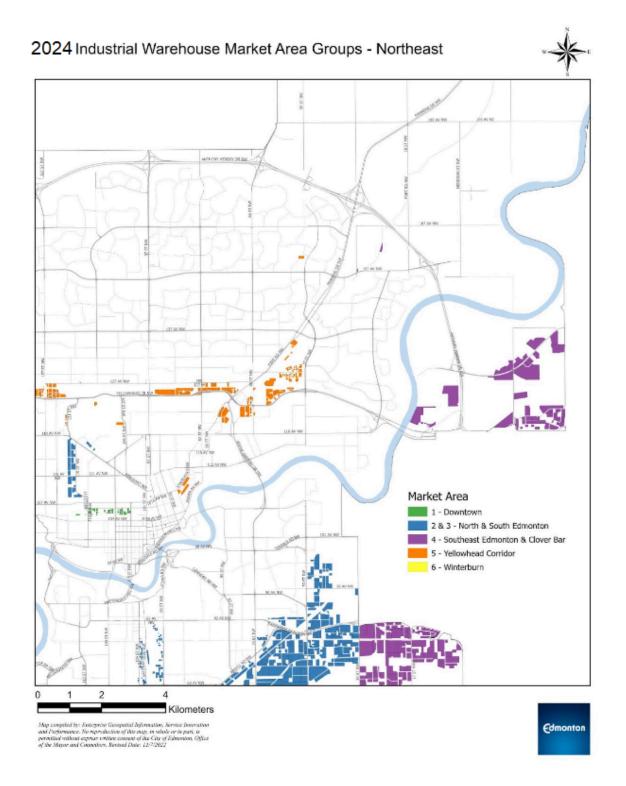
- Appraisal Institute of Canada (2005). *The Appraisal of Real Estate Second Canadian Edition.* Vancouver, Canada.
- Appraisal Institute of Canada (2010). *The Appraisal of Real Estate Third Canadian Edition.* Vancouver, Canada.
- City of Edmonton. (2017). *Zoning Bylaw No. 12800.* Retrieved from City of Edmonton: <u>http://webdocs.edmonton.ca/InfraPlan/zoningbylaw/bylaw 12800.htm</u>
- Eckert, J., Gloudemans, R., & Almy, R. (1990). *Property Appraisal and Assessment Administration*. Chicago, Illinois: International Association of Assessing Officers.
- International Association of Assessing Officers (2013). *Standard on Mass Appraisal of Real Property.* Kansas City, the United States of America.
- Province of Alberta. (2018). *Matters Relating to Assessment and Taxation Regulation*. Edmonton, AB: Kings Printer.
- Province of Alberta. (2018). Municipal Government Act. Edmonton, AB: Kings Printer.
- The Appraisal Journal. (2015). What's So Special About Special-Purpose Property? *The Appraisal Journal, Volume LXXXIII, Number 3*, p. 229.
- University of British Columbia, Sauder School of Business (2009). *Advanced Computer Assisted Mass Appraisal.* Vancouver, Canada.

Appendix









Time Adjustment Chart

YEAR	MONTH	ADJUSTMENT	YEAR	MONTH	ADJUSTMENT
2018	Jul	1.0136	2021	Jan	1.2125
2018	Aug	1.0205	2021	Feb	1.1914
2018	Sep	1.0275	2021	Mar	1.1707
2018	Oct	1.0345	2021	Apr	1.1504
2018	Nov	1.0415	2021	May	1.1304
2018	Dec	1.0486	2021	Jun	1.1108
2019	Jan	1.0557	2021	Jul	1.0915
2019	Feb	1.0629	2021	Aug	1.0726
2019	Mar	1.0701	2021	Sep	1.0539
2019	Apr	1.07745	2021	Oct	1.0356
2019	May	1.0848	2021	Nov	1.0177
2019	Jun	1.0921	2021	Dec	1
2019	Jul	1.0996	2022	Jan	1
2019	Aug	1.107	2022	Feb	1
2019	Sep	1.1146	2022	Mar	1
2019	Oct	1.1222	2022	Apr	1
2019	Nov	1.1298	2022	May	1
2019	Dec	1.1375	2022	Jun	1
2020	Jan	1.1452	2022	Jul	1
2020	Feb	1.153	2022	Aug	1
2020	Mar	1.1609	2022	Sep	1
2020	Apr	1.1688	2022	Oct	1
2020	May	1.1767	2022	Nov	1
2020	Jun	1.18475	2022	Dec	1
2020	Jul	1.1928	2023	Jan	1
2020	Aug	1.2009	2023	Feb	1
2020	Sep	1.2091	2023	Mar	1
2020	Oct	1.2173	2023	Apr	1
2020	Nov	1.2256	2023	May	1
2020	Dec	1.2339	2023	Jun	1

2024 Time Adjustments for Industrial Warehouse Model

Industrial	
IB	Industrial Business Zone (s.400) is for industrial businesses that carry out their operations such that no nuisance is apparent outside an enclosed building
IL	Light Industrial Zone (s.410) provides for high quality, light industrial developments, that operate with no nuisance factor apparent outside an enclosed building, limited outdoor activities
IM	Medium Industrial Zone (s.420) provides for manufacturing, processing, assembly, distribution, services and repair uses that carry out a portion of their operations outdoors, any nuisance should not generally extend beyond the boundaries of the site
н	Heavy Industrial Zone (s.430) provides for industrial uses that, due to their appearance, noise, odour, risk of toxic emissions, or fire and explosion hazards are incompatible with residential, commercial, and other land uses. Normally located on the interior of industrial or agricultural areas.
Agriculture	e and Reserve Zones
AGI	Industrial Reserve Zone (s.630) is to allow for agricultural and rural land use activities that do not prejudice future use when the lands are required for industrial use

Direct Control Provisions (s.700)

DC1	Direct Development Control (s.710) is to provide for detailed, sensitive control of the use, development, siting and design of buildings and disturbance of land where this is necessary to establish, preserve or enhance: a. areas of unique character or special environmental concern b. areas or sites of special historical, cultural, paleontological, archaeological, prehistoric, natural, scientific or aesthetic interest
DC2	Site Specific Development Control (s.720) is to provide for direct control over a specific proposed development where any other Zone would be inappropriate or inadequate.

Through statistical analysis, it was determined that zoning does not affect value for 2024 assessments.

For additional zoning details, please refer to the Zoning Bylaw 12800 found at <u>edmonton.ca</u>.

Copyright of this material and content is owned by the City of Edmonton and none of the content and material may be copied, reproduced, posted or transmitted in any form without the prior written consent of the City of Edmonton, unless otherwise being used in accordance with Section 299 and 300 of the *Municipal Government Act*, RSA 2000, c M-26.