DULUTH

INDEPENDENT SCHOOL DISTRICT # 709

PROPERTY VALUE ASSESSMENT

FULL REPORT

December 2006

JOHNSON CONTROLS

Duluth Public Schools Property Value Assessment
December 2006

Part of the Long Range Facilities Planning Process

The planning process so far

The Duluth Public Schools' Long Range Facilities Planning Process began in Spring 2006, as a partnership between the schools, Duluth citizens and Johnson Controls, a nationally-recognized facilities management expert. Our shared goal is to do an in-depth analysis of school facilities and futures needs to ensure we're providing the very best for our community in the coming decades.

A Citizens Group, representing all aspects of Duluth, has been meeting frequently during the past few months to ask questions and provide input. The Citizens Group has also held dozens of meetings with groups all over the city to get further input on this important planning process.

During that same time, Johnson Controls conducted four thorough studies:

1. Analysis of how population changes will impact school enrollment in future

2. Analysis of the physical condition of all buildings and spaces, and what it would cost to upgrade them

3. Assessment of the market value of each school property

4. Analysis of the educational adequacy of all school buildings and spaces

The first two reports – on Duluth's population and school enrollment projections, and on the cost to upgrade all school property – were presented to the community in late November and early December. The third report, assessing the market value of each school property, is now complete.

Why are market values of school properties being studied?

Knowing each property's financial value provides another piece of important information in the long-range planning process. The recent report on needed upgrades to all school buildings identified realistic costs if all upgrades were to be done. This market value assessment allows the community to explore another potential option, in that the report identifies realistic values in case any properties were to be sold rather than upgraded. Thus the community, rather than speculating on what various school properties might be worth, now has solid data to use for planning purposes.

Market analysis by nationally recognized, local real estate experts

District properties were thoroughly analyzed Ramsland & Vigen, Inc., a nationally recognized real estate appraisal and consulting firm with offices in Duluth since 1972. Among the company's corporate clients are Federated Department Stores; General Growth; 3M; Nordstrom, Seattle; Nebraska Furniture Mart, Omaha; and Sears Roebuck & Company, Chicago. Ramsland & Vigen also does extensive work and consulting for government entities, including the City of Duluth, State of Minnesota, North Carolina Department of Revenue, the Washington State Department of Revenue and many others.

Market analysis by nationally recognized, local real estate experts (continued)
The lead appraiser of the school properties was Max Ramsland, Jr., MAI, CRE, whose affiliations include being a director of the Minnesota Taxpayers Association, former chair of the Minnesota Higher Education Facilities Authority, former chair of St. Luke's Hospital, and a former trustee of the College of St. Scholastica. Also participating in the Duluth schools appraisals were John Vigen, SRA, and Gary Battuello, MAI.

Estimated market value of all school properties is nearly $40 million
As detailed in the complete property appraisal report, several proven formulas were used in its development. The appraisers identified three values of each property: 1) the value of the raw land; 2) the value of the property in use as schools by Independent School District 709; and 3) the alternate use – or, in lay terms, the market value.

While the total property in use as school facilities is valued at $119,568,000, the market value of those same properties is $39,978,000. The reason for the vast difference is that the current buildings were built to be schools or special purpose properties, complete with gymnasiums, cafeterias and the like. If those buildings are not used as schools, though, secondary or alternative uses are employed that result in deep discounts for their values as special purpose properties.

Are these the amounts for which the properties would indeed be sold?
Not necessarily. Just as in buying and selling a home, the cost is determined by a willing buyer and a willing seller. The school district is simply using the market values as realistic, and perhaps somewhat conservative, figures for long range planning purposes.

What steps would be taken if some properties were indeed sold?
It's still early in the information-gathering and options-consideration process, so it's not known if any school property will be sold. However, if that were to happen in the future, property would be sold in an open bidding process to ensure the highest return for Duluth taxpayers.

How to review the entire report
The entire market value assessment report can be viewed at www.duluth.k12.mn.us, and also in Room 213 of Historic Old Central High School, at 215 N. First Avenue East.

What are the next steps?
On December 19, the final report will be presented to the community, related to the educational adequacy of all school buildings and spaces.

Then in January 2007, various community meetings will be held for citizens to review and ask questions about data from all four reports: the demographic study/school enrollment forecast; the facilities assessment; the market value analysis; and the educational adequacy report.

After that, in February, discussions will begin regarding possible long-range plans and financial implications.

We look forward to your continued, valuable input. Thank you.

Doing the right things… for the right reasons… the right way!

ISD #709 PROPERTY VALUES

PROPERTY	Bldg. Sq. Ft. Area	Land (acre)	Value-in-Use[1]	Land (sq. ft.)[2]	Land Value	Alternate Use Value[3]
Ball Field (old Chester site)		3.09	$170,000	134,600	$170,000	$170,000
Bay View property (unused)		0.33	1,000	14,375	1,000	1,000
Central High School	299,980	76.84	30,300,000	3,434,270	8,000,000	13,700,000
Congdon Park Elementary School	69,101	4.69	3,000,000	204,296	576,000	380,000
Denfeld High School	258,798	13.15	16,400,000	572,814	450,000	1,400,000
public school stadium bldg (locker rooms/toilets)	7,562		250,000			250,000
East High School	200,340	12.71	14,000,000	553,648	765,000	1,100,000
facilities management (1889 fire hall)	23,390	0.48	500,000	20,909	150,000	500,000
Garfield Avenue building	33,356	1.35	800,000	58,806	150,000	800,000
Grant Elementary School	60,074	2.53	1,150,000	110,207	100,000	320,000
Grant Recreation Center, 9th Ave East & 11th Street	4,434	5.33	130,000	232,175	110,000	110,000
Hartley Field property (unused)		29.61	800,000	1,289,812	800,000	800,000
Historical Old Central High School	158,660	3.83	4,500,000	166,835	1,200,000	3,500,000
Homecroft Elementary School	48,126	6.69	1,000,000	291,416	140,000	350,000
Kensington Place property, Arrowhead Rd & Arlington Ave		26.51	600,000	1,154,776	600,000	600,000
Kenwood School (Edison)	43,387	4.29	760,000	186,872	110,000	270,000
Lakewood Elementary School	50,440	10.50	4,500,000	457,380	100,000	1,800,000
nature trails		6.42	40,000	279,655	40,000	40,000
Laura MacArthur Elementary School	155,406	3.83	2,300,000	166,835	100,000	550,000
Lester Park Elementary School	54,310	2.69	850,000	117,176	150,000	290,000
5301 Oneida	1,494		165,000	15,000		165,000
5305 Oneida	987		87,000	12,000		87,000
Lincoln Park Elementary School	170,596	2.75	3,600,000	119,790	160,000	610,000
Lowell Elementary School	98,873	19.94	4,000,000	768,586	500,000	2,100,000
Morgan Park Middle School	130,871	9.99	3,300,000	435,164	100,000	465,000
Undeveloped Site		2.23	35,000	97,139	35,000	35,000
Nettleton Elementary School	90,024	3.34	1,500,000	145,490	70,000	480,000
Ordean Middle School	138,068	26.00	7,500,000	1,132,560	1,000,000	3,000,000
Piedmont Elementary School	47,910	4.38	900,000	190,793	100,000	280,000
Rockridge Elementary School	30,671	13.03	1,780,000	567,587	325,000	875,000
Excess Land		5.46	150,000	237,838	150,000	150,000
Stowe Elementary School	79,232	8.90	7,300,000	387,684	150,000	2,300,000
Transportation Center	13,572	2.61	500,000	113,692	285,000	400,000
Woodland Middle School	120,207	17.72	6,700,000	771,883	700,000	2,100,000
	2,389,869	331.22	$119,568,000	14,442,063	$17,287,000	$39,978,000

NOTES:

[1] Value-in-use to ISD 709

[2] Raw land values

[3] Market or alternate use, e.g., apartments, etc.

[4] Values not adjusted for environmental remediation, if necessary.

prepared by Ramsland & Vigen, Inc. 12/8/06

APPENDIX

INTRODUCTION

Property:	Lands and Improvements Independent School District #709 Duluth, Minnesota
Date of Valuation:	December 1, 2006
Purpose of the Report:	The purpose of this report is to estimate the value-in-use and the alternate value or market value of the subject properties as of December 1, 2006. Definitions are found in the Addenda to this report, however, an abbreviated definition of value-in-use or "use value... is the value a specific property has for a specific use," or "The value of a property as it is currently used, not its value considering alternative uses."[1] The definition of market value is the traditional cash or cash equivalency market value, assuming a willing buyer and a willing seller. Other pertinent appraisal definitions are also contained in the Addenda to this document. An alternate use value is also presented, which assumes the properties are purchased for apartments, industrial or office use. It should be noted that this report has been prepared to provide assistance to the client regarding their long range planning study. As such, it is the introductory step to measure the property value parameters for ISD #709's real estate holdings. The depth of research and analysis, and the extent of discussion and the form of written communication are specific to the needs of the clients.
Property Rights Appraised:	The properties are appraised in fee simple as of the appraisal date.

[1] Appraisal Institute, The Appraisal of Real Estate, 12th edition [Chicago: Appraisal Institute, 2001], p. 24-25 "use value."

Scope of Work:

Client: Johnson Controls
1801 67th Avenue North
Minneapolis, Minnesota

Representing Independent School District #709, Duluth, Minnesota.

Property: Real estate holdings, both land and improvements, of Independent School District #709.

Intended User: The intended users of this report, and the opinions expressed herein, are the clients and representatives of Independent School District #709.

Relevant documents reviewed by the appraiser include: plat maps, legal descriptions, aerial photographs, sales documents, the Marshall Valuation Service, and other relevant documents obtained in the course of this assignment.

The objective of our analysis is to assist the client in decision making in three areas: the estimated market value in use as a functioning educational facility; the value of the raw land under the properties; and an alternate use value. The latter examines the use of possibly converting the properties to other uses, e.g. apartments, manufacturing, warehouse, office, etc. The alternate use analysis might be considered a worst case scenario. It is noted that there was no attempt to estimate the cost to raze any of the buildings for the purposes of reusing or to maximize an alternate land value, nor has this analysis attempted to adjust for the cost to remove or remediate any existing environmental condition.

The scope of the assignment includes a physical inspection of the properties, and comparable market sales. Most of the improvements are schools and therefore special purpose properties; they represent restrictions to many users in the marketplace due to configuration, age, gymnasiums, auditoriums, etc. A special purpose property is also a "limited-market property" or a property subject to a relatively small market and usually requiring lengthy market exposure. Experience dictates that a limited-market property will more than likely sustain deep discounts in the marketplace compared to its asset value as a special purpose property.

The appraiser utilized an income approach and/or cost approach to examine the an alternate use of apartments and/or office space. For example, an income analysis for the Historic Old Central High School will measure this facility as a value-in-use to ISD #709, and as market value as an office facility.

Due to the diversity of properties and schools, we identified a subset of recent school sales in the region and examined the physical attributes of the individual properties. A quantitative analysis of the subset was performed, which we believe represents a reasonable consensus of the schools' attributes. The model employed has a 1% significance (99% confidence level) and has an R^2 of 98% (meaning the movement in the dependent variable, value per square foot, is 98% explained by the existence of the independent variables of age, land areas, location, etc., or the physical attributes of the properties). The market based model was then tested against a replacement cost new less depreciation analysis.

The appraiser has also utilized a market data approach or sales comparison approach in examining other buildings that are owned by ISD #709. The alternate use value employed those commonly used valuation techniques identified by USPAP, where appropriate. It is noted that the conclusions herein, the values, the form of written communication, and the depth of the research, analysis, and discussion is specific to the needs of the client.

History of the Properties: The subject properties vary in age from the management facility, an 1889 former fire hall, to Lakewood Elementary School which was built in 1992. Most of the properties have been upgraded with additions, either cosmetic or substantial, and/or the removal of parts of the structures.

Date of Inspection: The appraiser inspected the subject properties externally on or about November 4-5, 2006, and an internal inspection was performed on all properties between November 27th and December 5th, 2006.

Marketing Time: Marketing time may be defined as: A normal market period is the amount of time necessary to expose a property to the open market in order to achieve a sale. Implicit in this definition are the following conditions:

1) The property will be actively exposed in and aggressively marketed to potential purchasers through market channels commonly used by sellers of similar types of properties.

2) The property will be offered at a price reflecting the most probable markup over market value used by sellers of similar properties.

3) A sale will be consummated under the terms and conditions of the definition of market value stated in this report.

The need for and conversion of various school properties in Duluth will vary depending on the local investment market, therefore any market considerations for the subject properties should be considered on that scale.

Considering the age, location and design of the subject properties, marketing time is stabilized herein at 6 to 36 months. The valuation conclusions presented herein are predicated on this marketing time frame.

Exposure Time: Exposure time is the estimated length of time the property interest being appraised would have been offered on the market prior to the hypothetical consummation of a sale at market value on the effective date of the appraisal. This is a retroactive estimate based upon an analysis of past events assuming a competitive and open market.

In the case of the subject properties, the exposure time is considered equivalent to the marketing time of 6 to 36 months.

Competency Rule: The appraiser is familiar with the local real estate market, commercial properties and appraisal methods, and is competent to perform this appraisal and render an estimate of value.

The appraiser has performed numerous appraisal reports and memorandums of value on commercial facilities over the past decade. He has performed appraisals for bankruptcy purposes, ad valorem taxation, asset allocation, and property acquisition for numerous clients, including property owners, taxpayers, assessors, etc.

John M. Vigen, SRA, has assisted in the valuation of land parcels, and Gary A. Battuello, MAI, has assisted in the valuation of the Historic Central High School property. Ms. Shannon Luepke, a statistician and associate appraiser, has assisted and worked under the supervision of Mr. Ramsland in the preparation of this report. All appraisers are personnel of Ramsland & Vigen, Inc.

PROPERTY DESCRIPTION

Location: The subject properties are located in various locations within the city limits of Duluth, St. Louis County, Minnesota. The City of Duluth was classified as a city in 1887 due to its expansion as a terminus for lumber and grain. Its economy has been shaped by the natural resources of the area including the mining industry of northeastern Minnesota. Duluth's natural harbor is the source of it's economy both in industry and tourism. Please refer to the Addenda for more detailed information about Duluth, Minnesota.

The properties appraised herein, which are owned by Duluth's Independent School District #709, are listed below by name/function, location, land area, square feet of improvements, and zoning:

PROPERTY	ADDRESS	ACRES	SQ. FT. AREA	TOTAL SQ.FT.	ZONING
Ball Field (old Chester site)	20th Ave East & 6th Street	3.09			
Bay View property (unused)	Mitchell Street (at Vermilion St)	0.33			
Central High School	800 Central Entrance	78.84	228,826		
storage garage			732		
track & field storage garage	24x30		720		
toilet bldg (football/soccer field)			176		
press booth (football/soccer field)	10x14		140		
press booths (baseball/softball fields)	(2) 8x20		320		
storage bldgs (football/soccer, baseball/softball fields)	(3) 8x12		288		
secondary technical crtr main campus	800 East Central Entrance		52,776		
secondary technical crtr upper campus	730 East Central Entrance		16,000	299,980	
Congdon Park Elementary School	3715 East Superior Street	4.69	29,570		R-1-B
addition - classrooms, office			5,770		
addition - classrooms, food service, media center			31,180		
warming house (leased)			2,056		
warming house addition (hockey equip/zamboni garage)			512	69,101	
Denfeld High School	2405 West 4th Street	13.15	201,176		R-1-C
addition - gymnasium, media center			57,623		
public school stadium bldg (locker rooms-toilets)			5,886		
public school stadium press box			492		
public school stadium track & field storage garage	24x30		720		
public school stadium concession bldg			324		
public school stadium ticket booths	(2) 8x10		160	256,360	
East High School	2900 East 4th Street	12.71	104,490		R-1-B
addition - music wing			9,000		
addition - gymnasium, shops, office, media center			30,000		
addition - gymnasium, food service			56,650		
storage bldg (athletic field)			400		
field house			800	230,340	
Facilities Management (1689 Arc Hall)	101 East 3rd Street	2.48	11,106		R-4
addition - shops			10,084		
relocatable bldgs (2) maintenance storage	1st Ave East & 4th St	3.35	2,200	23,390	
Garfield Avenue Buildings	330 Garfield Avenue	1.39	33,356		
garage (attached)			4,000	37,356	

Grant Elementary School	1027 North 8th Ave East	2.53	44,072		R-1-C
addition - food service, media center			7,148		
addition - classrooms (first floor)			2,960		
addition - classrooms (second & third floor)			5,894	60,074	
Grant Recreation Center, 9th Ave East & 11th Street	813 East 11th Street	5.33	2,529		R-1-C
Recreation Center Addition (city CDBG funds)			1,909	4,434	
Hartley Field property (unused)	Woodland Ave & Northfield St	29.81			
Historical Old Central High School	215 North 1st Ave East	3.83	126,025		
addition - gymnasium, classrooms (Unity School)			25,000		
garage (5 stall attached)			2,235		
addition - loading dock (administration)			5,310	153,660	
Homecrest Elementary School	4784 Howard Glaeser Road	6.58	30,910		P
addition - bus garage (classrooms)			2,180		
addition - classrooms			4,740		
addition - media center			3,091		
relocatable (room 136)			960		
relocatable enclosure (connecting corridor)			245	43,126	
Kensington Place property	Arrowhead & Rice Lake Roads	25.51			S
Kenwood School (Edison)	1722 Kenwood Avenue	4.29	11,564		S-1-B
addition - gymnasium, classrooms, food service			17,625		
addition - classroom, media center			7,165		
addition - basement pod			138		
warming house			1,047		
relocatable			1,008		
relocatable enclosure (connecting corridor)			165		
relocatable units (6) leased by Edison			4,675	43,387	MUNS-4
Lakewood Elementary School	5227 North Tischer Road	10.5	50,440		
nature trails		6.41			
Laura MacArthur Elementary School	727 Central Avenue	3.83	110,329		R-1-C
addition - West Junior (Dechfeld) MacArthur			36,048		
addition - stairwell			458		
addition - elevator			3,577		
addition - chlorine storage			19	155,405	
Lester Park Elementary School	315 North 54th Avenue East	7.50	35,830		R-1-B
addition - classrooms			12,600		
warming house			1,111		
residential house - 5305 Oneida Street (rented)			2,492		
residential house - 5301 Oneida Street (rented)			2,316	54,310	
Lincoln Park Elementary School	2424 West 5th Street	2.75	26,609		R-3
addition - junior high (demolished 1991)			4,929		
addition - industrial arts			7,790		
addition - elementary addition			20,122		
addition - swimming pool			16,184		
addition - gymnasium			8,821		
addition - elevator			469		
addition - connector (junior & elementary)			7,620		
addition - food service (first floor)			7,920		
addition - classrooms (second & third floor)			18,559		
addition - collaborative for youth services			12,061		
addition - access, staff locker rooms			1,319		
addition - chlorine storage			3		
NOTE: this total includes demolished addition			170,660	172,590	

Lowell Elementary School/Barnes ECFE	2000 Rice Lake Road	19 94	11,396		R-1-C
addition - gymnasium			4,369		
addition - elementary school (new Lowell)			82,639	98,873	
Morgan Park Middle School	4243 - 85th Avenue West	12 10	59,900		R-1-C
addition - gymnasium, food service			30,102		
addition - office, media center			8,200		
addition - swimming pool			18,200		
addition - music wing			10,400		
addition - elevator			931		
storage garage			430		
track & field storage bldg (garage)	24x36		864		
relocatable (room 102)			1,285		
relocatable enclosure (connecting corridor)			966	130,871	
Nellie Stone Elementary School	103 East 48th Street	9 34	24,953		R-2
addition - gymnasium, classrooms			12,539		
addition - gym, classrooms, media, food service			52,532	90,024	
Ordean Middle School	301 North 40th Avenue East	26 00	114,369		R-1-A
addition - elevator			300		
addition - science classrooms			6,216		
addition - media center, classrooms			9,600		
storage bldg			120		
field house (Ordean Stadium)			6,071		
Ordean Stadium Building (concessions)			3,772		
Ordean Stadium Press Box			160	139,068	
Piedmont Elementary School	2827 Chambersburg Avenue	4 38	33,956		R-1-B
addition - classrooms, media center			9,460		
addition - classrooms, elevator			6,474	47,910	
Rockridge Elementary School	4949 Ivanhoe Street	12 49	18,091		R-1-B
addition - classrooms			11,960	30,671	
Stowe Elementary School	715 101st Avenue West	9 90	78,224		R-1-C
addition - entrance (old Stowe demolished)			1,008		
compost bldg	20x24		480	79,712	
nature trail	101st Avenue West	1 04			
Transportation Center	3202 West Superior Street	2 64	9,635		M2
garage			2,400		
bus garage			2,537	13,572	
Woodland Middle School	201 Cleveland Street	17 72	94,095		R-1-B
addition - media center, classrooms			26,018		
storage bldg		0 00	120	120,207	
TOTALS		284 50		2,125,467	

Site Data: The site size and topography vary for each individual property.

Building Descriptions: The individual improvements of each property are summarized herein.

Highest and Best Use:

The concept of highest and best use represents the premise upon which value is based. Highest and best use is defined as follows:

The reasonably probable and legal use of vacant land or an improved property, which is physically possible, appropriately supported, financially feasible, and that results in the highest value. The four criteria the highest and best use must meet are legal permissibility, physical possibility, financial feasibility, and maximum productivity.[2]

This definition is applied specifically to the highest and best use of land. It is recognized that in cases where a site has existing improvements, the concluded highest and best use as if vacant may be different from the highest and best use given the existing improvements (as improved). The existing use will continue, however, until the land value, in its highest and best use, exceeds the total value of the property under its existing use plus the cost of removing or altering the existing structure.

A limited-market property with a unique physical design, special construction materials, or a layout that restricts its utility to the use for which it was built, is considered a special purpose property. Special purpose properties, such as school buildings, may be appraised based on their current use or the most likely alternative use, rather than their highest and best use. Please see the appraisal definitions in the Addenda of this report.

Highest and Best Use as a Special Purpose Property: Continued use as school buildings.

Highest and Best Alternative Use: Apartments, office, industrial use, etc.

History of the Property:

For the most part, the existing school properties have not sold nor been offered for sale in the past five years; however, the Garfield Avenue manufacturing and warehouse space is currently being offered for sale, and reportedly has an offer pending.

Estimated Marketing Period:

Special use properties, i.e., schools, have a relatively small market and usually lengthy market exposure needed in order to sell. Marketing time for the subject properties is estimated to range from 6 to 36 months.

---

[2] Appraisal Institute, Dictionary of Real Estate Appraisal, 4th ed. (Chicago: Appraisal Institute, 2002), p. 135.

Valuation Procedure:

Sales Comparison Approach

The sales comparison approach to value examines the most recent sale prices of properties similar to the subject in size, type or utility that have sold in the marketplace. This approach, also called the direct sales comparison method, is good evidence of value because it represents the activities and reactions of buyers, sellers, users and investors. The theory behind the sales comparison approach is based on the "principle of substitution," which implies that a prudent person will not pay more to buy or rent a property than it will cost to buy or rent a comparable substitute property.

The sales comparison approach is relatively simple. The assumption of knowledgeable buyers and sellers, acting prudently and in their own best interest should meet the criterion of a "rational" or efficient market. If we assume that the market is efficient, or even reasonably efficient, then it can be assumed that there is a rational relationship between the price paid for real estate and its physical, functional and/or economic components, e.g., location, age, size, etc.

The sales comparison approach compares commodities of other properties that have sold and makes adjustments for similar and/or dissimilar characteristics. To provide an estimate of value for the subject properties, an econometric model was designed using a subset of fourteen comparable school sales which will be analyzed and adjusted to the subject. The econometric model is a quantitative approach to adjusting the comparable sales and estimating the values of the subject properties. The individual property attributes considered in this model are land size, date of sale, building square foot area, location, extraordinary circumstances, and date the property was built. The location factor measures the overall quality and level of the site's location and is determined by appraiser observation. Extraordinary circumstances takes into account any factors occurring at the time of the sale which are not typical and may have had an influence on the sales price (i.e., UMD's proximity to Chester Park School). The econometric model has a 99% confidence level in predicting the values of the subject properties.

Cost Approach

As a corollary to the sales comparison approach, the appraiser has performed a cost approach analysis to the individual properties to corroborate the conclusions of the econometric models. This data, as well as other explanatory notes, are retained in the Ramsland & Vigen, Inc. files.

A valuation summary is presented on the following page.

ISD #709 PROPERTY VALUES

PROPERTY	Bldg. Sq. Ft. Area	Land (acre)	Value-in-Use[1]	Land (sq. ft.)[2]	Land Value	Alternate Use Value[3]
Ball Field (old Chester site)		3.09	$170,000	134,600	$170,000	$170,000
Bay View property (unused)		0.33	1,000	14,375	1,000	1,000
Central High School	299,599	76.64	30,300,000	3,434,270	8,000,000	13,700,000
Congdon Park Elementary School	69,101	4.69	3,000,000	204,296	576,000	380,000
Denfeld High School	258,793	13.15	16,400,000	572,814	460,000	1,400,000
public school stadium bldg (locker rooms/toilets)	7,262		250,000			250,000
East High School	200,340	12.71	14,000,000	553,648	765,000	1,100,000
facilities management (1889 Fremont)	23,390	0.48	500,000	20,909	150,000	500,000
Garfield Avenue building	33,356	1.39	800,000	58,806	150,000	800,000
Grant Elementary School	60,074	2.53	1,150,000	110,207	100,000	320,000
Grant Recreation Center, 9th Ave East & 11th Street	4,434	5.33	130,000	232,175	110,000	110,000
Hartley Field property (unused)		29.61	800,000	1,289,812	800,000	800,000
Historical Old Central High School	158,660	2.83	4,500,000	166,835	1,200,000	3,500,000
Homecroft Elementary School	68,125	6.69	1,000,000	291,416	140,000	350,000
Kensington Place property, Arrowhead Rd & Arlington Ave		26.51	600,000	1,154,776	600,000	600,000
Kenwood School (Ellison)	43,387	4.29	760,000	186,872	110,000	270,000
Lakewood Elementary School	50,440	12.50	4,500,000	457,080	100,000	1,800,000
nature trails		5.42	40,000	279,655	40,000	40,000
Laura MacArthur Elementary School	156,405	3.83	2,300,000	166,835	100,000	560,000
Lester Park Elementary School	54,310	2.69	850,000	117,176	150,000	290,000
5301 Oneida	1,494		165,000	10,000		165,000
5305 Oneida	867		87,000	12,000		87,000
Lincoln Park Elementary School	170,595	2.75	3,600,000	119,790	160,000	610,000
Lowell Elementary School	96,873	18.94	4,000,000	768,586	500,000	2,100,000
Morgan Park Middle School	130,971	9.95	3,300,000	435,164	100,000	405,000
Undeveloped Site		2.20	35,000	97,139	35,000	35,000
Nettleton Elementary School	90,024	3.34	1,500,000	145,490	70,000	480,000
Ordean Middle School	138,068	26.00	7,500,000	1,132,560	1,000,000	3,300,000
Piedmont Elementary School	47,910	4.38	900,000	190,793	190,000	260,000
Rockridge Elementary School	30,671	13.09	1,780,000	567,547	325,000	875,000
Excess Land		5.45	150,000	237,636	150,000	150,000
Stowe Elementary School	79,232	8.90	7,300,000	387,684	150,000	2,300,000
Transportation Center	13,572	2.61	500,000	113,692	285,000	400,000
Woodland Middle School	120,207	17.72	5,700,000	771,583	700,000	2,100,000
	2,239,869	331.22	$119,488,000	14,447,013	$17,797,000	$39,979,000

NOTES

[1] Value-in-use to ISD 709

[2] Raw land values

[3] Market or alternate use (e.g. apartments, etc.

[4] Values not adjusted for environmental remediation, if necessary.

prepared by Ramsland & Vigen, Inc. 12/8/06

Certification:

The undersigned certifies that, to the best of his knowledge and belief:

The statements of fact contained in this report are true and correct.

The reported analyses, opinions, and conclusions are limited only by the reported assumption and limiting conditions, and are my personal, unbiased professional analyses, opinions and conclusions.

The undersigned has no present or prospective interest in the property that is the subject of this report, and has no personal interest or bias with respect to the parties involved.

Our compensation is not contingent on an action or event resulting from the analyses, opinions, or conclusions in, or the use of, this report.

Our analyses, opinions, and conclusions were developed, and this report has been prepared, in conformity with the requirements of the Standards of Professional Practice of the Appraisal Institute.

The use of this report is subject to the requirements of the Appraisal Institute relating to review by its duly authorized representatives.

As of the date of this report, the undersigned, Maxwell O. Ramsland, Jr., has currently completed the continuing education program of the Appraisal Institute.

The undersigned has made a personal inspection of the property that is the subject of this report.

No one provided significant professional assistance to the person signing this report, however, Ms. Shannon Luepke, Ramsland & Vigen, Inc. statistician and associate appraiser, worked on this file, as did John M. Vigen, SRA, for land valuation, and Gary A. Battuello, MAI, for the valuation of the Historic Central High School.

Information furnished by Johnson Control regarding site sizes, building square footage, addresses, ages of the properties, etc, is assumed to be correct, and has not been independently corroborated.

This appraisal assignment was not based on a requested minimum valuation, a specific valuation, or the approval of a loan.

The undersigned have the knowledge and experience necessary to complete the assignment competently.

Maxwell O. Ramsland, Jr., MAI
Minnesota Certified General License: AP - 4000940 (expires 8-31-07)

ADDENDA

APPRAISAL DEFINITIONS

MARKET VALUE

Market value is defined by the Appraisal Standards Board of The Appraisal Foundation on page 4 of its publication Uniform Standards of Professional Appraisal Practice, 2006 Edition (USPAP2006) as:

> MARKET VALUE: a type of value, stated as an opinion, that presumes the transfer of a property (i.e., a right of ownership or a bundle of such rights), as of a certain date, under specific conditions as set forth in the definition of the term identified by the appraiser as applicable in an appraisal.[3]

The traditional definition of market value is:

> The most probable price which a property should bring in a competitive and open market under all conditions requisite to a fair sale, the buyer and seller each acting prudently and knowledgeably, and assuming the price is not affected by undue stimulus. Implicit in this definition is the consummation of a sale as of a specified date and the passing of title from seller to buyer under conditions whereby:
>
> 1. buyer and seller are typically motivated;
>
> 2. both parties are well informed or well advised, and acting in what they consider their own best interests;
>
> 3. a reasonable time is allowed for exposure in the open market;
>
> 4. payment is made in terms of cash in U. S. dollars or in terms of financial arrangements comparable thereto; and
>
> 5. the price represents the normal consideration for the property sold unaffected by special or creative financing or sales concessions granted by anyone associated with the sale.[4]

---

[3] The Appraisal Foundation, Uniform Standards of Professional Appraisal Practice, 2006 Edition [Washington, D.C.: The Appraisal Foundation, 2006], p. 4.

[4] Uniform Standards of Professional Appraisal Practice, 2006 Edition, p. 194, referencing published regulations by FIRREA in 1989, July 5, 1990 and August 24, 1990, and citing other government institutions (i.e., FRS, NCUA, FDIC, OTS and OCC). "This definition is also referenced in regulations jointly published by the OCC, OTS, FRS, and FDIC on June 7, 1994, and in the *Interagency Appraisal and Evaluation Guidelines*, dated October 27, 1994."

VALUE IN USE

The value a specific property has to a specific person or specific firm as opposed to the value to persons or the market in general. Special-purpose properties such as churches, schools, and public buildings, which are seldom bought and sold in the open market, can be valued on the basis of value in use. The value in use to a specific person may include a sentimental value component. The value in use to a specific firm may be the value of the plant as part of an integrated multiplant operation. *See also* **use value.**[4]

USE VALUE

1. In economics, the attribution of value to goods and services based upon their usefulness to those who consume them. *See also* **exchange value.**

2. In real estate appraisal, the value a specific property has for a specific use; may be the highest and best use of the property or some other use specified as a condition of the appraisal; may be used where legislation has been enacted to preserve farmland, timberland, or other open space land or urban fringes. *See also* **value in use.**[5]

SPECIAL-PURPOSE PROPERTY

A limited-market property with a unique physical design, special construction materials, or a layout that restricts its utility to the use for which it was built; also called *special-design property*.[6]

LIMITED-MARKET PROPERTY

A property that has relatively few potential buyers at a particular time.[7]

Limited-market properties may be appraised based on their current use or the most likely alternative use. Due to the relatively small markets and lengthy market exposure needed to sell such properties, there may be little evidence to support an opinion of market value based on their current use.[8]

---

4 The Dictionary of Real Estate Appraisal, 4th edition, p. 306.

5 Ibid, p. 303

6 Ibid., p. 272

7 Ibid., p. 165.

8 The Appraisal of Real Estate, 12th edition, p. 26.

CONSISTENT USE

The principle of consistent use, which holds that land cannot be valued based on one use while improvements are valued based on another..... The use value of a site under an interim use may differ substantially from the market value of the same site as though vacant and available for development under its long-term highest and best use. Many outmoded improvements clearly do not resemble the ideal improvement, but they do create increments of value over the value of the vacant land. These improvements may appear to violate the principle of consistent use, but in fact the market simply acknowledges that, during the transition to a new use, the value contributed by old improvements to an improved property make the land and the existing improvements worth more than the vacant land.[9]

---

[9] Ibid., p. 324

Comparable Sales Regression Analysis

A multiple regression analysis of 14 comparable school sales has been performed in order to provide an estimate of value in the sales comparison approach. The multiple regression analysis measures the relationship of independent variables to a dependent output. Factors such as date of sale, date built, size and location are the independent variables (the X variables, expressed as X_n) in an equation that are linked to a single dependent variable (the Y variable); in this case, price per square foot. The relationship of the independent variables to the dependent variable is expressed through the regression equation.

The independent variables must be expressed in a numerical format. Date of sale, X_2, is expressed numerically by measuring the number of days between a base date and the comparables' dates of sale. For example, with a base date of January 1, 1900, 34,425 days passed until comparable #1 sold in April 1994.

Expressing the other X variables in a numerical format is more simple. Land square foot area, X_1, square foot area of property, X_3, and year built, X_4, are numerical values. Location, X_5, is a subjective factor based on appraiser observation. It is expressed on a scale of 0 through 5; 0 being superior, 3 being average and 5 being poor. The location factor measures the overall quality and level of the site's location. Extraordinary circumstances, X_6, is based on the circumstances of the sale; extraordinary circumstances in the sale are expressed with a 1 value and normal or typical circumstances are expressed with a 0 value.

To make a prediction of value for the subject property, each independent variable for the subject is multiplied by the coefficient for that variable, and the sum of the products is added to the constant. Algebraically, the equation is expressed as follows:

$$\hat{Y} = X_1b_1 + X_2b_2 + X_3b_3 + X_4b_4 + X_5b_5 + X_6b_6 + C$$

where,

$\hat{Y}$		dependent variable
X_n		independent variable
b_n	=	coefficient for that variable
C	=	constant

Presented on the following pages is a discussion of the regression analysis.

ISD 709 Comparable Sales Model

No.	Property	Address	Price	Land SF	Date	B SF	Lev	Ext. Cond	Date built	Price/SF
1	[illegible] School	[illegible] Ave [illegible], Duluth	[illegible]	[illegible]	[illegible]	[illegible]		3	[illegible]	[illegible]
2	[illegible] School	[illegible]	[illegible]	54,800	Sep [illegible]	28,544	2	2	[illegible]	[illegible]
3	[illegible] School	[illegible] West [illegible] St. Duluth	[illegible]	[illegible]	[illegible]	26,924	2	2	[illegible]	[illegible]
4	[illegible] School	[illegible] St. Duluth	[illegible]	[illegible]	Sep [illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
5	Jefferson School	[illegible] St. Duluth	[illegible]	[illegible]	[illegible]	[illegible]		[illegible]	[illegible]	[illegible]
6	[illegible] School	[illegible] Ave W. Duluth	[illegible]	[illegible]	Sep [illegible]	[illegible]	2	3	[illegible]	[illegible]
7	[illegible] School	[illegible] W [illegible] St, Duluth	[illegible]	[illegible]	Aug [illegible]	[illegible]	[illegible]	3	[illegible]	[illegible]
8	Jefferson Elementary School	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	3	[illegible]	[illegible]
9	[illegible] School	[illegible] Ave W. Duluth	[illegible]	[illegible]	[illegible]	[illegible]	2	[illegible]	[illegible]	[illegible]
10	Adult Learning Center	[illegible] St. Duluth	$200,000	[illegible]	[illegible]	[illegible]	[illegible]	1	[illegible]	[illegible]
11	[illegible] School	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	4	3	[illegible]	[illegible]
12	[illegible] School	[illegible]	[illegible]	[illegible]	Jan [illegible]	[illegible]	1	1	[illegible]	[illegible]
13	[illegible] Elementary School	[illegible], MN	[illegible]	[illegible]	[illegible]	51,[illegible]	4	3	[illegible]	[illegible]
14	[illegible] Park School	[illegible] College St. [illegible]	[illegible]	[illegible]	Jun [illegible]	[illegible]	[illegible]	1	[illegible]	[illegible]

[illegible]	[illegible]

SUMMARY OUTPUT

Regression Statistics	
Multiple R	[illegible]
R Square	[illegible]
Adjusted R Square	[illegible]
Standard Error	[illegible]
Observations	14

ANOVA

	df	SS	MS	F	Significance F
Regression	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Residual	[illegible]	[illegible]	[illegible]		
Total	[illegible]	[illegible]			

	Coefficients	Standard Error	t Stat	P-value	Lower 95%	Upper 95%	Lower 95.0%	Upper 95.0%
Intercept	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Land SF	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Date	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
B SF	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Lev	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Ext. Cond	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Date built	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

RESIDUAL OUTPUT

Observation	Predicted Price/SF	Residuals
1	[illegible]	[illegible]
2	[illegible]	[illegible]
3	[illegible]	[illegible]
4	[illegible]	[illegible]
5	[illegible]	[illegible]
6	[illegible]	[illegible]
7	[illegible]	[illegible]
8	[illegible]	[illegible]
9	[illegible]	[illegible]
10	[illegible]	[illegible]
11	[illegible]	[illegible]
12	[illegible]	[illegible]
13	[illegible]	[illegible]
14	[illegible]	[illegible]

There are various statistical tests to determine whether the resulting regression equation is reliable in predicting a value for the subject property.

The R^2 factor "represents the percentage movement of the dependent variable that can be explained by the percentage movement in the independent variables, or how well changes in the independent variables explain the change in the dependent variable."[11] The value of the R^2 factor can be from 0 to 1; 0 indicating no explained variance, 1 indicating there is no unexplained variance. In the case of the 14 observation regression model, the *r*-squared factor is .9856. in other words, 978.5 % of the change in the dependent variable (price per square foot) is explained by changes in the independent variables (land area, date of sale, size, location, extraordinary circumstance, and date built). R^2 is expressed as follows:

$$R^2 = \frac{\text{Explained Variance}}{\text{Total Variance}} = \frac{\Sigma (\hat{Y} - \bar{Y})^2}{\Sigma (Y - \bar{Y})^2} = \frac{ESS}{TSS}$$

The R^2 calculation is based on a least squares premise where error (which is defined as the observed value [Y] less the mean value $\bar{Y}$) is squared $(Y - \bar{Y})^2$ for each observation. The aggregate sum of the squares is the denominator of the equation, or the TSS or total sum of the squares. The numerator of the equation is the squared sum of the predicted value ($\hat{Y}$) less the mean ($\bar{Y}$) or ESS, the explained sum of the squares.

<u>The Adjusted R^2 or $\bar{R}^2$</u> is a formula for adjusting the R^2 for degrees of freedom. (Degrees of freedom equal the total number of observations or comparable sales (expressed as n) less the number of independent variables, e.g., land area, date, size, date built, etc. (expressed as k) minus 1 (the dependent variable, e.g., n - k - 1). The $\bar{R}^2$ adjusts the R^2 for the degrees of freedom, and the formula is simply expressed as:

$$\bar{R}^2 = 1 - \frac{RSS\,(n - k - 1)}{TSS\,(n - 1)}$$

---

[11] Murphy, Lloyd T. III, "Determining the Appropriate Equation in Multiple Regression Analysis," *The Appraisal Journal*, October 1989, p. 501.

Employing our previous equations, R^2 is calculated as follows:

$$R^2 = 1 - \frac{RSS/(n - k - 1)}{TSS/(n - 1)}$$

$$R^2 = 1 - \frac{(1 - R^2)/(n - k - 1)}{1/(n - 1)}$$

$$R^2 = 1 - \frac{.0843774/(14 - 6 - 1)}{1/(14 - 1)}$$

$$R^2 = 1 - \frac{.00205396}{.07692308}$$

$$R^2 = 1 - .02670152$$

$$R^2 = .9732984$$

The adjusted R^2 is a more meaningful measure of overall fit than R^2 for a multiple regression analysis.

The Standard Error of the Estimate, abbreviated as SEE, is "a measure of the quality of fit of the overall equation that is useful in its own right."[12] The SEE is an estimate from the data of the sample standard deviation of the residuals. It describes the variability of the dependent variable (Y) about the true regression line. In its simplest form, a low SEE suggests a more significant overall regression equation, and a higher SEE suggests less significance. In this explanation, higher and lower are relative terms compared to the mean of the dependent variable. In other words, a SEE that is 20% of the mean of the dependent variable indicates a more meaningful regression equation than a SEE that is 40% of the mean of the dependent variable. The SEE is 1.718 which equates to 23.6% of the mean. It is identified in Summary Output under the heading ANOVA (analysis of variance) as the square root of the mean square (MS) of the residual.

---

[12] Studenmund, A.H., Using Econometrics: A Practical Guide, 2nd ed., p. 35.

The equation for calculating the Standard Error of the Estimate, SEE, follows.

$$SEE = \sqrt{\frac{\sum residual^2}{degrees\ of\ freedom}}$$

To calculate the SEE, the residuals for each observation are needed. The residual is the observed value of Y, in this case price per sf., minus the predicted value of Y. The residual tells us how far the observation lies from the regression line. To meet our assumptions of regression, we can check that both the mean and sum of the residuals is zero (with rounding). Since some of the residuals are negative values, to enable us to work with all positive values we square each of them. The sum of the squared residuals is calculated and then divided by the residual degrees of freedom, which are 7(14 -6 - 1) in this case. The square root of this number gives the SEE. The values and calculations for the observations and SEE are shown below.

Observation	*Observed Price/SF*	*Predicted Price/SF*	*Residuals*	*Residuals^2*
1	$7.52	$6.62	0.90052469	0.8 0944717
2	$0.35	$2.63	-2 28273393	5 210874214
3	$1.76	$0.51	1.243165528	1.545460531
4	$0.74	($1 63)	2 370357992	5 618597009
5	$8.53	$10.17	-1.64025401	2.690433213
6	$3.05	$2.40	0 643744537	0.414407028
7	$0.89	$1.84	-0.9466264	0.899892044
8	$1.97	$2.19	-0.21648505	0.046865775
9	$4 55	$3 57	0 977922586	0 956332585
10	$11.49	$12.54	-1.05444612	1.111858614
11	$0.81	$0.97	-0.16231478	0.026346088
12	$36 57	$35.99	0.581885328	0.338590535
13	$0.48	$1.37	-0.88530116	0.783758153
14	$23.31	$22 84	0 472560789	0 223313699

$$SEE = \sqrt{\frac{\sum residual^2}{degrees\ of\ freedom}}$$

$$= \sqrt{\frac{20.6776722}{7}}$$

$$= 1.718706$$

The T-statistic demonstrates the statistical significance of the independent variables in explaining the dependent variable. The rule of thumb is that a T-statistic of 2.0± is acceptable. The preferred method is to consult a critical value of T chart. Presented below are the calculated T-statistics for the independent variables and the corresponding confidence levels based on 7 degrees of freedom (14 observations minus 6 coefficients minus 1, the dependent variable).

Independent Variable	T-Statistic	Confidence Level
Land Sq. Ft. Area, X_1	1.015	> 65.8%
Date of Sale, X_2	2.504	>= 95.0%
Square Feet, X_3	5.942	>= 99.9%
Location, X_4	-9.334	>= 99.9%
Extraordinary Circumstance, X_5	2.917	>= 97.8%
Date Built, X_6	3.941	>= 99.4%

The T-statistic demonstrates the statistical significance of the independent variables in explaining the dependent variable. The formula for the T-statistic is:

$$\text{T-statistic} = \frac{\text{coefficient}}{\text{standard error}}$$

Looking at the regression output for square feet (X_3):

$$\frac{\text{coefficient}}{\text{standard error}} = \frac{0.0002596}{0.0000437}$$

$$= 5.942$$

The F-statistic is a measurement to determine whether the total equation is significant in predicting the dependent variable ($\hat{Y}$). The F-statistic performs for the entire equation what the T-statistic does for a single independent variable (needless to say in a two variable equation, with one dependent and one independent variable, the T-statistic and the F-statistic will be equal). Referring to F-distribution tables for the critical value of F, at .01 (a 99% confidence level) and noting 6 coefficients in the numerator and 7 degrees of freedom in the denominator; the F-statistic for the regression equation is 79.977, which exceeds the 99.9% confidence level. The F-statistic is explained and calculated as follows:

$$F = \frac{\text{explained variance/number of coefficients}}{\text{(unexplained variance)/(number of observations - coefficients - 1)}}$$

$$F = \frac{r^2/6}{(1 - r^2)/(14 - 6 - 1)}$$

$$F = \frac{.985622/6}{(1 - .985622)/(7)}$$

$$F = \frac{.164270}{.002054}$$

$$F = 79.97$$

To project values for the subject property, each subject school's independent variables (shown below) were applied using the regression equation.

Property	Land Sq Ft	Date	Sq Ft Area	Location	Ext. Circ.	Avg. Date Built
	X1	X2	X3	X4	X5	X6
Central High School	3,347,150	11/20/2006	290,980	1.5	0	1977
Congdon Park Elementary School	204,295	11/20/2006	69,101	1	0	1960
Denfeld High School	572,814	11/20/2006	258,799	2	0	1941
public school stadium bldg		11/20/2006	7,562	2	0	2001
East High School	663,948	11/20/2006	200,340	1	0	1954
Grant Elementary School	110,297	11/20/2006	60,074	2.5	0	1937
Grant Recreation Center, 9th Ave E & 11 St	232,175	11/20/2006	4,434	1	0	1977
Historical Old Central High School	166,835	11/20/2006	158,650	2	0	1899
Homecroft Elementary School	291,416	11/20/2006	48,125	3	0	1957
Kenwood School (Edison)	186,872	11/20/2006	43,387	2	0	1954
Laura MacArthur Elementary School	166,835	11/20/2006	166,406	5	0	1927
Lester Park Elementary School	124,146	11/20/2006	54,310	2	0	1926
Lincoln Park Elementary School	119,790	11/20/2006	170,596	5	0	1952
Morgan Park Middle School	527,076	11/20/2006	130,871	4.5	0	1941
Nettleton Elementary School	145,490	11/20/2006	90,024	3	0	1958
Ordean Middle School	1,132,560	11/20/2006	138,068	1	0	1960
Piedmont Elementary School	190,793	11/20/2006	47,910	2	0	1957
Rockridge Elementary School	805,424	11/20/2006	30,671	1	0	1975
Woodland Middle School	775,883	11/20/2006	120,207	1	0	1956
Lakewood Elementary School	457,380	11/20/2006	50,440	2	0	1967
Stowe Elementary School	387,684	11/20/2006	79,712	3	0	1967
Lowell Elementary School	808,585	11/20/2006	99,873	3	0	1968

Duluth, Minnesota

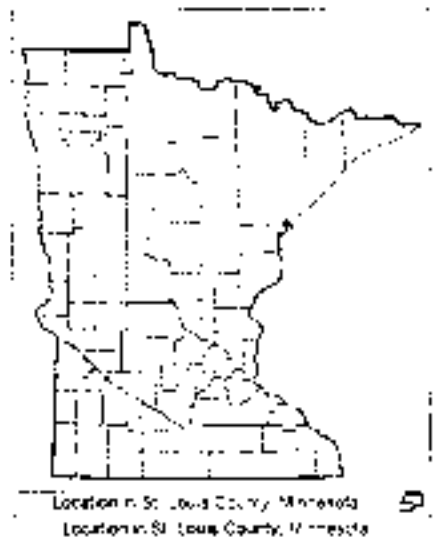
Duluth is the county seat of St. Louis County, Minnesota, United States. As of the 2000 census, the city had a total population of 86,918, making it the fourth largest city in Minnesota. Taking account of the growth of the city and its boundaries, there are around an extra 92,000 people on the outer boundaries, making the population (including outer suburbs and villages) 164,000. It is a seaport at the westernmost point on the north shore of Lake Superior. It is linked to the Atlantic Ocean 2,300 miles (3,700km) away via the Great Lakes and then either the Erie Canal/New York State Barge Canal or the Saint Lawrence Seaway. It is farther from the ocean than any other deep water port.

Duluth forms a single metropolitan area with Superior, Wisconsin, together called the Twin Ports. The two cities share a harbor and are one of the most important ports on the Great Lakes. Among the items shipped out are iron ore (taconite) and grain. Both cities have museums devoted to the local nautical heritage, and Duluth has America's only all freshwater aquarium, the Great Lakes Aquarium. A major destination for tourists is the Aerial Lift Bridge spanning the short canal into Duluth's harbor. It is a vertical lift bridge, and notable in that it was originally built as an exceedingly rare aerial transfer bridge.

The city is named for Daniel Greysolon, Sieur du Lhut, the first known European explorer of the area.

The northern terminus of Interstate 35 is in Duluth. The highway extends south through the state to the Twin Cities, and continues its southerly course to the city of Laredo, Texas.

Duluth, Minnesota
Location



Location in St. Louis County, Minnesota
Location in St. Louis County, Minnesota
Coordinates: 46°46′58″N, 92°6′15″W

Government	
County	St. Louis County
Founded	1679
Incorporated	1800s
Mayor	Herb Bergson
Geographical characteristics	
Area	226.2 km² (87.3 sq mi)
Water	50.01 km² (19.3 sq mi) 22.11%
Demographics	
Population (2000)	86,918
Density	1,278.1/km²
Metro	275,486
Time zone	Central (UTC-6)
Summer (DST)	Central (UTC-5)
Website: www.ci.duluth.mn.us	

History

Pre-founding

Native American tribes had occupied the Duluth area for thousands of years. The original inhabitants are believed to be members of Paleo-Indian cultures followed by the "Old Copper" peoples, who hunted with spear points and knives and fished with metal hooks. Around two thousand years ago, the Woodlands people, known for their burial mounds and pottery, occupied the area. They also cultivated wild rice, a crop that continues to be harvested today by tribes in the region and is often seen being sold in the area, especially in Wisconsin.

Duluth's canal connects Lake Superior to the Duluth-Superior harbor and the St. Louis River. The Aerial Lift Bridge connects Canal Park with Minnesota point (Park point), a seven mile long sandspit.

In 1679, the first white man known to visit the location of present-day Duluth and the city's namesake, Daniel Greysolon, Sieur du Lhut, arrived to settle rivalries between two Indian nations, the Dakota and the Ojibwa, to advance fur trading missions in the area. His work allowed for this to occur, with the Ojibwa becoming middlemen between the French and the Dakota. As a result, the area prospered, and

as early as 1662, the Hudson Bay Company set up a small post at Fond du Lac.

It was not until 1792 that the next trading post, on the Wisconsin side of the St. Louis River, was opened by Jean Baptiste Cadotte of the North West Company. A fire destroyed the post in 1800, but a German emigre, John Jacob Astor, constructed a post on the river's Minnesota side. The store initially floundered as a result of the Indians' insistence on trading with established English and French partners. However, Astor managed to convince the United States Congress to bar foreigners from trading in American territory. His American Fur Company was re-formed in 1816-17. Hard times hit the post once again by 1839 due to fashionable Europeans choosing silk hats over those made from beaver pelts.

Permanent settlement

Interest in the area was piqued in the 1840s as rumours of copper mining began to circulate. A government land survey in 1852 followed by a treaty with local tribes in 1854, secured wilderness for gold-seeking explorers, a "land rush", and the development of iron ore mining in the area.

Around the same time, newly-constructed channels and locks in the East permitted large ships to access the area. A road connecting Duluth to the Twin Cities was also constructed. Eleven small towns on both sides of the St. Louis River were formed, establishing Duluth's roots as a city.

By 1857, copper resources became scarce, and the area's economic focus shifted to timber harvesting. A nation-wide financial crisis led to nearly three quarters of the city's early pioneers leaving.

In the late 1860s, a financier, Jay Cooke (after whom the Jay Cooke State Park is named), convinced the Lake Superior and Mississippi Railroad to create an extension from St. Paul to Duluth. The railroad opened areas due north and west of Lake Superior to iron ore mining. Duluth's population on New Year's Day 1869 consisted of fourteen families; by the Fourth of July, 3,500 people were present to celebrate.

Twentieth century

The city thrived, and the area's hillside and downtown areas were populated by early residents. In the 1900s, the city's port passed New York City in gross tonnage handled, elevating it to being the leading port in the United States. Meanwhile, there were ten newspapers, six banks, and an eleven-story skyscraper, the Torrey Building, already present in the town. In 1907, U.S. Steel announced that a $6 - $8 million plant would be constructed in the area. Although it took eight years for steel to actually be produced, predictions hold that Duluth's population would rise to 200,000 to 300,000. With the plant came Morgan Park, a once-independent company town that now stands as a city neighborhood.

During much of the twentieth century, the city was an industrial port town, with a cement plant, nail mill, wire mills, and the U.S. Steel plant. In 1916, during World War I, a shipbuilding plant on St. Louis River produced eight vessels simultaneously. A neighborhood was formed around this operation, today known as Riverside. Similar industrial operations were heightened during the Second World War. Population growth continued after the war, with a peak of 106,884 reached in 1950. The city experienced strong immigrant influx, and the Finnish IWW community published a widely read labor newspaper, Industrialisti.

Due to foreign competition, the steel plant closed in 1971, presenting a major blow to the city. Other industrial activity followed suit, with more closures, including the Air Force base. Within a decade, unemployment rates surged to 15 percent, emptying local stores and creating long job application lines.


Duluth in July 2004 from Enger Tower

With the decline of the city's industrial core, the local economic focus shifted to tourism. The downtown was renewed with red brick streets and skywalks, and distasteful warehouses along the waterfront were converted into cafés, shops, and restaurants, forming Canal Park as a largely tourism oriented district.

Today

The city is now a fairly popular Midwestern tourist attraction, and is a convenient base for trips to the North Shore via Highway 61, or to fishing and wilderness expeditions in Minnesota's far north, including the Boundary Waters Canoe Area Wilderness. It continues to function as a regional hub for a large stretch of area encompassing northeastern Minnesota, northwestern Wisconsin, and the western Upper Peninsula of Michigan. The population continues to decline, according to the U.S. Census and projections.

The Untold Delights of Duluth

Early doubts about the potential of the Duluth area were voiced in the speech *The Untold Delights of Duluth*, made by Representative J. Proctor Knott of Kentucky on January 27, 1871 in the House. The speech against the St. Croix and Superior Land Grant lampooned Western boosterism, portraying Duluth as an Eden in fantastically florid terms. The speech has been reprinted in collections of folklore and humorous speeches and is regarded as a something of a classic.

Geography & climate

According to the United States Census Bureau, the city has a total area of 226.2 km² (87.3 mi²). It is Minnesota's second largest city in terms of land area, surpassed only by Hibbing. 176.1 km² (68.0 mi²) of it is land and 50.0 km² (19.3 mi²) of it (22.11%) is water.

Duluth's geography is dominated by a rather steep, San Francisco-like hill which represents a transition from the elevation of Lake Superior's beach to that of the inland. For example, the Sky Harbor airport's weather station, near the lake on the Park Point sandbar has an elevation of 607 ft (185 m) [1], while Duluth International Airport atop the hill is at 1,427 ft (435 m) [2]. As a result, Duluth is primarily a southwest-northeast city. A considerable amount of development on the hill's upslope gives Duluth a reputation for deathly steep streets. Some neighborhoods such as Piedmont Heights and Bayview Heights are atop the hill at times giving scenic views of the city. Perhaps the most rapidly developing part of the city is a commercial mall and big box retailer shopping strip "over the hill", the Miller Trunk Corridor.

Lake Superior taken from Lakewalk in Duluth, April 2006

The city's climate is known for long, cold winters and cool summers, hence the nickname "the air-conditioned city". During the winter months, temperatures often remain below freezing for periods of weeks. A normal winter brings consistent snow cover from December through March. Winter storms that pass south or east of Duluth can often set up easterly or northeasterly flow. Upslope lake-effect snow events can bring a foot (30 cm) or more of snow to the city while areas 50 miles (80 kilometers) inland receive considerably less.

Summers are cool and comfortable, with daytime temperatures averaging in the 70s-80s°F range (20-30°C) due to the cooling easterly winds of the lake (as opposed to occasional temperatures over 90°F (32°C) inland). Record high of 117°F (47°C) in the region), although temperatures may remain below 50°F (10°C) during afternoons as late in the year as June along the Lake Superior shore, even when the inland temperature is in the 70s°F (mid-20s°C). Black flies and mosquitos are a major problem during the summer months. The phrase "cooler by the lake" can be heard often in weather forecasts during the summer, especially on days when an easterly wind is expected. Due to the specific heat of the huge lake, seasons are substantially delayed, with November often much warmer than April. Great local variations are also common, due to the rapid change in elevation between the hill and shore-side.

Demographics

Coffee shop and skywalk in downtown Duluth

As of the census[3] of 2000, there were 86,918 people, 35,500 households, and 19,915 families residing in the city. The population density was 493.4/km² (1,276.1/mi²). There were 39,964 housing units at an average density of 210.0/km² (544.0/mi²). The racial makeup of the city was 92.65% White, 1.63% Black or African American, 2.44% Native American, 1.14% Asian, 0.03% Pacific Islander, 0.29% from other races, and 1.82% from two or more races. 1.26% of the population were Hispanic or Latino of any race.

There were 35,500 households out of which 26.6% had children under the age of 18 living with them, 41.4% were married couples living together, 11.4% had a female householder with no husband present, and 43.9% were non-families. 34.5% of all households were made up of individuals and 13.9% had someone living alone who was 65 years of age or older. The average household size was 2.29 and the average family size was 2.90.

In the city the population was spread out with 21.3% under the age of 18, 16.2% from 18 to 24, 26.1% from 25 to 44, 21.3% from 45 to 64, and 15.1% who were 65 years of age or older. The median age was 35 years. For every 100 females there were 93.4 males. For every 100 females age 18 and over, there were 89.7 males.

The median income for a household in the city was $33,768, and the median income for a family was $46,394. Males had a median income of $36,182 versus $24,965 for females. The per capita income for the city was $18,868. About 8.6% of families and 15.5% of the population were below the poverty line, including 15.4% of those under age 18 and 8.5% of those age 65 or over.

Neighborhoods

Central

- Canal Park
- Central Hillside
- Downtown Duluth
- East Hillside
- Park Point

Eastern Duluth

- Chester Park / UMD
  - The Chester Park neighborhood is located just east of the East Hillside neighborhood. It straddles both sides of a wooded ravine that contains Chester Creek, one of 26 streams that flow through the city. It is a popular hiking spot. The ravine opens at the top into a wide wooded "bowl" shaped valley known as Chester Bowl and contains a small lift served ski area, ski jumps,

pond, soccer field and cross country ski trails
- Congdon Park
- East End / Endion
- Hunter's Park
- Lakeside - Lesley Park
- Morley Heights / Parkview
- North Shore

Neighborhoods above the hill

- Duluth Heights
- Kenwood
- Piedmont Heights
- Woodland

West Duluth

- Bayview Heights
- Cody
- Denfeld
- Fairmount
- Irving
- Oneota
- Spirit Valley

West of West Duluth

- Fond du Lac
- Gary - New Duluth
- Norton Park (Duluth)
- Morgan Park
- Riverside
- Smithville

"West End" / Lincoln Park

- Lincoln Park

Colleges and universities

- University of Minnesota Duluth
- College of St. Scholastica
- Lake Superior College
- Duluth Business University
- University of Wisconsin - Superior

K-12 education

Catholic schools

Catholic elementary schools in Duluth are under the administration of the Diocese of Duluth.

- Holy Rosary School (K-6)
- St. James School (PreK-8)
- St. John's School (PreK-8)
- St. Michael's Lakeside School (PreK-6)

Public elementary schools

- Congdon Park (K-5)
- Grant Magnet (K-5)
- Homecroft (K-5)
- Lakewood (K-5)
- Laura MacArthur (K-5)
- Lesley Park (2-5)
- Lincoln Park (K-8)
- Lowell Music Magnet (K-5)
- Nettleton Magnet (K-5)

- Piedmont (K-5)
- Rockridge (K-1)
- Stowe (K-5)

Public middle schools

- Morgan Park (6-8)
- Ordean (6-8) http://www.duluth.k12.mn.us/ordean/index.htm
- Woodland (6-8)

Public high schools

- Central High School (Duluth, Minnesota) (9-12)
- Denfeld High School (Duluth, Minnesota) (9-12)
- East High School (Duluth, Minnesota) (9-12)
- Harbor City International School (Duluth, MN) (9-12)

Alternative public schools

- Adult Learning Center
- Chester Creek Academy
- Merritt Creek Academy
- Secondary Technical Center
- Unity
- Wood and Hills Academy

Private and charter schools (non-Catholic)

- Harbor City International School (Public, Independent)
- Kenwood Edison Charter School
- Lakeview Christian Academy (PK-12)
- The Marshall School (5-12)
- Montessori School of Duluth (Preschool/Elementary)
- Raleigh Edison Charter School
- Stone Ridge Christian School
- Summit School
- Washburn Edison Charter School
- North Shore Community School(Preschool-6)

Professional sports history

Duluth once fielded a National Football League team called the Kelleys (officially the Kelley Duluths after the Kelley-Duluth Hardware Store) from 1923-1925 and the Eskimos (officially Ernie Nevers' Eskimos after the early NFL great, their star player) from 1926-1927. The Eskimos were then sold and became the (Orange, New Jersey) Orange Tornadoes.

Year	W	L	T	Finish
Kelleys				
1923	4	3	0	7th
1924	5	1	0	4th
1925	0	5	0	15th
Eskimos				
1926	6	5	3	8th
1927	4	8	2	11th

The Duluth-Superior Dukes of the Northern League (Independent Professional Baseball) played in West Duluth's Wade Stadium from the League's inception in 1993 until 2002 when the team moved to Kansas City and became the Kansas City T-Bones. The Dukes were Northern League Champions in 1997 and 2000.

Amateur sports

Since 1977, Duluth has played host to Grandma's Marathon (named after its original sponsor, Grandma's Restaurant), drawing runners from all over the world. Held annually in June, the course of the marathon starts just outside Two Harbors, Minnesota, runs down Old Highway 61, the old route for Minnesota State Highway 61, along the North Shore of Lake Superior and finishes in one of Duluth's tourism neighborhoods, Canal Park. The same route is also taken during the North Shore Int'l Marathon, held in September, drawing

racers from all over the world

The Beargrease Sled Dog Marathon is Duluth's annual sled dog race organized in February and named after John Beargrease, the son of the Anishinaabe Chief Makwabmidem and one of the first mail carriers between Two Harbors, Minnesota and Grand Marais, Minnesota. He and his brothers carried mail by sled dog, boat, and horse for almost twenty years between the two towns, where there was no road. Competitors can choose between two distances: the longer 400-mile course takes a round trip from Duluth to the Boundary Waters Canoe Area, and the 150-mile course departs from Duluth and ends in Tofte, Minnesota. The marathon was first held in 1980 and is acknowledged as a training ground for the larger and more elite Iditarod sled dog race.

The University of Minnesota Duluth Bulldog hockey games are a major event in town during the cold Duluth winter. Games are televised locally, and thousands watch the games in person at the Duluth Entertainment Convention Center (DECC). Several Bulldogs have gone on to success in the National Hockey League, including hockey great Brett Hull.

The Duluth Huskies are a college summer wood bat league baseball team which is based in Duluth and plays in the Northwoods League. The team plays its home games at Wade Stadium. They are made up from some of the top college baseball players in the country, playing 34 home games each summer between June and August.

The Duluth-Superior Shoremen are a semi-pro football team based in Duluth's Public Schools Stadium. They play for the Mid-American Football League, and placed second in that league's championship game in 2005.

The Duluth Xpress is an amateur baseball team that plays its games at the Ordean Middle School baseball field. The team is made up of current college baseball players, ex-college baseball players, and ex-professional baseball players. The Xpress compete in the Arrowhead league which is a class B league of Minnesota amateur baseball.

Famous people

- Sir Barry - *former member of the band R.E.M.*
- Bob Dylan - *born in Duluth, but grew up in Hibbing, Minnesota*
- Lorenzo Music - *voice of the animated cartoon cat Garfield*
- Gene Lee Nalin
- Phil Solem - *member of the band The Rembrandts, who perform the theme song to the television show Friends*
- Low - *the slowcore rock band. All three members are from Duluth*
- Don LaFontaine - *movie trailer voice*
- Dave Draco - *an American salesman and businessman*
- Mason Aguirre - *a 2006 Winter Olympics snowboarding halfpipe team member*
- Jamie Langenbrunner - National Hockey League player
- Telly Savalas - *actor who owned a house on Park Point*
- Darron Ward - *swimmer who competed for Canada in the 1988 and 1992 Summer Olympics*
- Jesse Sawyer - *Heavily investigated, though never formally charged, associate of Theodore Kaczynski, AKA The Unabomber*
- Jano Paviucci - Successful business entrepreneur, creator of Jano's Pizza Rolls

Politics

In 2004, Duluth was center to a controversial legal battle between the City Council, local residents, and the ACLU. The debate and eventual lawsuit revolved around a marble fixture inscribed with the ten commandments which resided on the lawn of City Hall. The city eventually agreed to remove the fixture, and it now resides on private property near the Comfort Suites Hotel on Canal Park Drive.

The city was also featured in the New York Times article "The Next Retirement Time Bomb"[3], because Duluth recently conducted a financial study of the health care benefits it has promised its retired city workers. It turned out that its future health care obligations would bankrupt the city government. Duluth is held in the article to be considered representative of many local governments that have not kept tabs on its future health-care obligations promised to retired workers. Duluth's own newspaper, the News-Tribune, portrays prior mayor John Fedo, who was acquitted in a 1988 corruption trial while mayor, in an unflattering respect with regard to reasons behind this.

During the 2000 presidential election Nader received over 6.9% of votes from Duluth residents, one of the highest in the country for a city with a population of at least 85,000.

Comedian and political commentator Al Franken broadcast his Air America Radio radio show live from the Marshall Performing Arts Center on the UMD campus on December 7, 2005. His guests included Duluth Mayor Herb Bergson (shown here) as well as UMD students Jamison Tessneer and Chad McKenna of the Minnesota Public Interest Research Group. Franken praised the city of Duluth for having the highest voter turnout of any U.S. city in the 2004 presidential election, and he also congratulated UMD's Precinct 10 for having an 85 percent turnout. [4]

The current mayor of Duluth is Herb Bergson [5], who is serving his first term. He has announced in June 2006, that he will not be running for re-election to better focus on city issues at hand without the hassle of election campaigning.

Media

Radio

AM Radio Stations

- 560 - WEBC - "The Fan" Sports
- 610 - KDAL - News/Talk
- 710 - WOSM - Talk
- 850 - WWJC - Christian
- 970 - WGEE - Sports
- 1230 - WKLK - Adult standards
- 1490 - KQDS AM - News/Talk


Lake Superior view from Duluth - December 2004

FM Radio Stations

- 87.7 - KBJR - Radio station simulcasting from local NBC affiliate
- 88.5 - W203AL - Family Radio (KEAR) Translator
- 89.5 - WRFJ - "The Refuge" - Contemporary Christian music
- 92.5 - KDNI - Christian
- 91.3 - KUWS - University of Wisconsin-Superior - Carries Wisconsin Public Radio "Ideas" Network
- 92.1 - WWAX - "The Beat" - Adult Top 40
- 92.9 - WSCD - Minnesota Public Radio classical music
- 93.7 - WGHP-LP - Carries programming from the Three Angels Broadcasting Network
- 94.1 - K231BI - "94X" - Active Rock. Translator of KZIO, Two Harbors 104.3 (also audible in most of the area)
- 94.9 - KQDS-FM - Classic Rock
- 95.7 - KDAL-FM - "The Bridge" - Adult Contemporary
- 96.5 - WXLX - Classic Rock
- 97.3 - KDNW - Contemporary Christian music
- 98.8 - KTCO - "Kat Country" - Country
- 100.5 - WSCN - Minnesota Public Radio News & Talk
- 101.7 - KLDJ - "Kool 101.7" - Oldies
- 102.5 - KRBR-FM - Classic Rock
- 103.3 - KUMD - University of Minnesota Duluth College radio. Member of the independent Public Radio network
- 104.3 - KZIO - "94X" - Active Rock. Also appears on 94.1 as a translator for areas of Duluth with weaker reception of this Two Harbors, Minnesota-based station
- 105.1 - KKCB - "B 105" Country
- 105.9 - WEGZ - Christian
- 107.3 - WNXR - Oldies
- 107.7 - KBMX - "Mix 108" - Adult Top 40

Television

Duluth has experienced firsthand the consequences of media consolidation. On March 8, 2005 the sale of Duluth's CBS affiliate was announced to Malara Broadcast Group of Sarasota, Florida. The group agreed to pay Granite Broadcasting Group, which already runs the NBC affiliate KBJR, to take over the operations for KDLH. The majority of the newsstaff of KDLH was dismissed.

- KDLH 3 CBS (KDLH-DT ATSC on channel 33)
- KBJR 6 NBC (KBJR-DT ATSC on channel 19, digital subchannel carrying UPN)
- WDSE 8 PBS (WDSE-DT ATSC multiplex on channel 36)
- WDIO 10 ABC (WDIO-DT ATSC on channel 43)
- KQDS 21 Fox (KQDS-DT ATSC on channel 17)
- K58CM 58 Trinity Broadcasting Network

Print

Local newspapers

- *Duluth News Tribune*
- *The Reader Weekly* (alternative weekly, free)
- *The Budgeteer* (semi-weekly, free)
- *Business North* (monthly)
- *Transistor* (alternative weekly, free)

Transportation

The area marks the northern endpoint of Interstate 35, which stretches south to Laredo, Texas. U.S. Highways that serve the area are U.S. Highway 53 which stretches from La Crosse, Wisconsin to International Falls, Minnesota and U.S. Highway 2 from Everett, Washington to the Upper Peninsula of Michigan. There are two freeway connections from Duluth to Superior. US 2 provides a connection into Superior via the Richard I. Bong Memorial Bridge, and the other one is Interstate 535 and US 53 duplexing over the John A. Blatnik Bridge.

There are many state highways that serve the area as well. Highway 23 runs diagonally across Minnesota, directly connecting Duluth to Sioux Falls, South Dakota. Highway 33 provides a

bypass of Duluth connecting Interstate 35 to U.S. Highway 53. Highway 61 provides access to Thunder Bay, Ontario via the breathtaking North Shore of Lake Superior. Highway 194 provides Duluth's "Central Entrance" and Mesaba Avenue. WIS 13 reaches along Lake Superior's South Shore. WIS 35 runs along Wisconsin's western border to La Crosse.

Duluth International Airport serves the city and nearby Superior, Wisconsin.

Duluth is a major shipping port for taconite. The former Duluth, Missabe and Iron Range Railway, now Canadian National Railway operates taconite hauling trains in the area.

The local bus system is run by the Duluth Transit Authority, which services not only the Duluth area, but Superior, WI, as well. The DTA runs a system of buses manufactured by Gillig.

Duluth is also serviced by Greyhound Lines, with daily service to the Twin Cities, as well as Thunder Bay, ON, Wisconsin, Michigan, and the Iron Range.

Looking towards Duluth from Superior, Wisconsin over the Lift Bridge in spring.

Power supply

Duluth, Minnesota gets electric power from Duluth-based Minnesota Power, a subsidiary of ALLETE Corporation. Minnesota Power produces energy at generation facilities located throughout northern Minnesota, as well as at a generation plant in North Dakota. The latter supplies electricity into the MP system by the Square Butte HVDC line, which ends near the town.

Minnesota Power primarily uses western coal to generate electricity, but also has a number of small hydro-electric facilities, the largest of which is the Thomson Hydroelectric Dam just south of Duluth.

Sister cities

Duluth has four sister cities, as designated by Sister Cities International, Inc. (SCI).

- Petrozavodsk, Russia
- Växjö, Sweden
- Ohara, Japan
- Thunder Bay, Ontario, Canada

Surrounding and nearby communities

- Superior, Wisconsin sits across the bay from the city and is a long-time rival. Although Superior has little over one-third the population of Duluth, it remains a self-contained city rather than a suburb.
- Hermantown is probably the most suburban of adjacent communities. Once the rural town of Herman, the city was incorporated in 1975 and has experienced a great amount of both residential and commercial growth since, largely in the form of suburban housing developments and auto-oriented businesses along the Miller Trunk (Hwy 53) corridor.
- Proctor borders the city's West Duluth neighborhood district, and has traditionally been a railroad town. It is built on more of an urban scale (by Duluth standards), but today largely functions as a suburb.
- Cloquet, a city of 11,201 (2000), is located roughly twenty-five miles from Duluth. The city has its own downtown and industrial job sector, though many residents commute to Duluth. Carlton, Esko, and Scanlon are its own satellite towns.
- Two Harbors is located a short drive up Minnesota Highway 61.
- The Mesabi Range, while about an hour's drive north on U.S. Highway 53, is intricately connected to the city, having traditionally sent iron ore to the harbor for shipping. Duluth is the commercial, governmental, and media center for a region encompassing all of St. Louis County.

References

- 2005-2006 Qwest Dex Phone Directory (Twin Ports Edition)
- Frederick, Chuck. Duluth: the city and the people. American Geographical & World Publishing, 1994.
- Duluth Lynchings Online Resource - http://collections.ambs.org/duluthlynchings/
- The Lynchings in Duluth - http://www.ambs.org/marketing/mhspress/products/087351336X.html

External links

- City of Duluth - Official Website
- Diocese of Duluth's Website
- Duluth Public Schools
- Duluth Huskies Baseball Page
- Duluth-Superior Dukes Tribute Page
- Duluth News Tribune
- Duluth.com
- Duluth Chamber of Commerce
- Tourist Information
- Duluth Public Library

ASSUMPTIONS AND LIMITING CONDITIONS

1. This is an appraisal report intended to comply with the reporting requirements set forth under Standard Rule 2-2(c) of the Uniform Standards of Professional Appraisal Practice. As such, it might not include full discussions of the data, reasoning, and analyses that were used in the appraisal process to develop the appraiser's opinion of value. Supporting documentation concerning the data, reasoning, and analyses is retained in the appraiser's file. The information contained in this report is specific to the needs of the client and for the intended use stated in this report. The appraiser is not responsible for unauthorized use of this report.

2. No responsibility is assumed for legal or title considerations. Title to the property is assumed to be good and marketable unless otherwise stated in this report.

3. The property is appraised free and clear of any or all liens and encumbrances unless otherwise stated in this report.

4. Responsible ownership and competent property management are assumed unless otherwise stated in this report.

5. The information furnished by others is believed to be reliable. However, no warranty is given for its accuracy.

6. All engineering is assumed to be correct. Any plot plans and illustrative material in this report are included only to assist the reader in visualizing the property.

7. It is assumed that there are no hidden or unapparent conditions of the property, subsoil, or structures that render it more or less valuable. No responsibility is assumed for such conditions or for arranging for engineering studies that may be required to discover them.

8. It is assumed that there is full compliance with all applicable federal, state, and local environmental regulations and laws unless otherwise stated in this report.

9. It is assumed that all applicable zoning and use regulations and restrictions have been complied with, unless a nonconformity has been stated, defined, and considered in this appraisal report.

10. It is assumed that all required licenses, certificates of occupancy, or other legislative or administrative authority from any local, state, or national governmental, or private entity or organization have been or can be obtained or renewed for any use on which the value estimates contained in this report are based.

11. Any sketch in this report may show approximate dimensions and is included to assist the reader in visualizing the property. Maps and exhibits found in this report are provided for reader reference purposes only. No guarantee as to accuracy is expressed or implied unless otherwise stated in this report. No survey has been made for the purpose of this report.

12. It is assumed that the utilization of the land and improvements is within the boundaries or property lines of the property described and that there is no encroachment or trespass unless otherwise stated in this report.

13. The appraiser is not qualified to detect hazardous waste and/or toxic materials. Any comment by the appraiser that might suggest the possibility of the presence of such substances should not be taken as confirmation of the presence of hazardous waste and/or toxic materials. Such determination would require investigation by a qualified expert in the field of environmental assessment. The presence of substances such as asbestos, urea-formaldehyde foam insulation, or other potentially hazardous materials may affect the value of the property. The appraiser's value estimate is predicated on the assumption that there is no such material on or in the property that would cause a loss in value unless otherwise stated in this report. No responsibility is assumed for any environmental conditions, or for any expertise or engineering knowledge required to discover them. The appraiser's descriptions and resulting comments are the result of the routine observations made during the appraisal process.

14. Any proposed improvements are assumed to be completed in a good workmanlike manner in accordance with the submitted plans and specifications.

15. The distribution, if any, of the total valuation in this report between land and improvements applies only under the stated program of utilization. The separate allocations for land and buildings must not be used in conjunction with any other appraisal and are invalid if so used.

16. Possession of this report, or a copy thereof, does not carry with it the right of publication. It may not be used for any purpose by any person other than the party to whom it is addressed without the written consent of the appraiser, and in any event, only with proper written qualification and only in its entirety.

17. Neither all nor any part of the contents of this report (especially any conclusions as to value, the identity of the appraiser, or the firm with which the appraiser is connected) shall be disseminated to the public through advertising, public relations, news sales, or other media without prior written consent and approval of the appraisers.

18. The Americans with Disabilities Act, "ADA," became effective January 26, 1992. The appraiser has not made a specific compliance survey/analysis of this property to determine whether or not it is in conformity with the various detailed requirements of the ADA. It is possible that a compliance survey of the property, together with a detailed analysis of the requirements of the ADA, could reveal that the property is not in compliance with one or more of the requirements of the Act. If so, this fact may have a negative effect upon the value of the property. Since there is no direct evidence relating to this issue, non-compliance with the requirements of ADA has not been considered in estimating the value of the property.

QUALIFICATIONS OF THE APPRAISER

Maxwell O. Ramsland, Jr., MAI, CRE

Present Position:

Ramsland & Vigen, Inc.
Real Estate Appraisers & Consultants
302 West Superior Street, Suite 660
Duluth, Minnesota

Past Experience:

Associate: C. Robert Boucher, MAI, CRE
Washington, D. C. (1970 - 1971)

Associate: Wilbur S. Ratcliffe, MAI, SRPA
Washington, D. C. (1967 - 1970)

Staff Appraiser, City Mortgage Department
Equitable Life Assurance Society of the United States
Washington, D. C. (1964 - 1967)

Professional Associations:

Appraisal Institute
(Certificate No. 5079)
Director: AIREA, Minnesota Chapter No. 35 (1978 -1981)
President: AI Duluth-Superior Chapter (1975 - 1976, 1978 - 1979)

Counselors of Real Estate
(Certificate No. 991)

American Society of Appraisers (1971 – 2004)
ASA, Accredited Senior Appraiser
Director, ASA Educational Foundation (1972 - 1977)

Certified General Licensed Appraiser:

State of Arizona ID 30946 exp 12/31/08
State of California ID AG025848 exp 2/02/09
State of Colorado ID CG40011739 exp 12/31/09
State of Georgia ID 5054 exp 8/31/07
State of Illinois ID 153.0001581 exp 9/30/07
State of Iowa ID CG01716 exp 6/30/07
State of Minnesota ID AP-4000940 exp 8/31/07
State of Nebraska ID CG980067R exp 12/31/06
State of New Jersey license ID RG01432 exp 12/31/07
State of Ohio ID 000417670 exp 10/06/07
State of Tennessee ID 00002200 exp 11/30/07
State of Virginia ID 4001 005394 exp 7/31/08
State of Washington ID 1100343 exp 8/13/08
State of Wisconsin ID 186-010 exp 12/14/07

Member:	American Arbitration Association Institute of Property Taxation (affiliate) Real Estate Counseling Group of America
Education:	University of Minnesota Bachelor of Arts (1963), Duluth
	American University AIREA, Real Estate Appraisal I (1965) Institute on Tax Planning in Real Estate (1969)
	University of Connecticut AIREA, Real Estate Appraisal II (1967) AIREA, Real Estate Appraisal VI (1969)
	Equitable Life Assurance Society of the United States Real Estate Finance and Valuation Two year formal management program (1965 - 1967) Washington, D. C.

Ramsland & Vigen, Inc., is a real estate appraisal and consulting firm with offices in Duluth, Minnesota. The firm's experience ranges from a national litigation appraisal practice to a regional base serving Minnesota, Wisconsin and the Lake Superior region. The national litigation experience has traditionally involved recognized retail, distribution and publishing companies. The firm also specializes in the analysis and valuation of intercity mixed-use developments, hotels, regional shopping centers, and large industrial and distribution properties. Regional services include more traditional valuation assignments: financial underwriting, ad valorem, eminent domain, economic feasibility, arbitration, bankruptcy, litigation support, asset allocation, and insurance valuation.

The firm specializes in the area of department store and region shopping center valuation, maintaining an extensive data base on department store sales, rental rates, ground rent, and productivity analysis. Econometric models have been developed employing this data. The firm has also expertise in real estate problem areas such as financial workouts, hazardous waste and asbestos.

In 1993, Mr. Ramsland was elected a member and Ramsland & Vigen, Inc., became affiliated with the Real Estate Counseling Group of America, Inc., a nationwide assemblage of real estate counselors, appraisers and academicians. The group was founded in 1979 to represent a network of national experts.

Mr. Ramsland is a director of the Minnesota Taxpayers Association. Past directorships include the College of St. Scholastica, Minnesota Public Radio (regional panel), St. Luke's Hospital of Duluth (chairman), the Marshall Preparatory School, the Minnesota Higher Education Facilities Authority (chairman), the Bayfront Park Development Association (chairman), Duluth Graduate Medical Educational Council (chairman), the Duluth-Superior Chapter of the Appraisal Institute (president), and the Blue Cross/Blue Shield corporate member board.

Mr. Ramsland has been a signatory to appraisal reports submitted to major financial and lending institutions, including insurance companies, commercial banks, savings and loan, pension funds, etc., plus attorneys, corporations and individual clients.

Corporate Clients:

Bankers Trust
Brookfield Development
Burlington Northern Railroad
Burr Wolff
Dillard Department Stores, Inc.
D. M. & I. R. Railroad
Federated Department Stores
General Growth Properties, Inc.
JMB Properties Company
K-Mart
Knight-Ridder Newspapers, Inc.
Lakehead Pipeline, Duluth
May Company
Melvin Simon & Associates, Inc
Merchantile Stores Company, Inc.
3M
May Department Stores, St. Louis
Minnesota Power Company
Montgomery Ward
Nebraska Furniture Mart
Nordstrom, Seattle
North Shore Bank of Commerce, Duluth
Norwest Bank, Duluth/Minneapolis
Omaha World- Herald
J. C. Penney
Trizec-Hahn Corp., San Diego
SPX Corporation
Sak's, Inc.
Sears Roebuck & Company, Chicago
Soo Line Railroad Company
United States Steel Corp.
US Bank - Duluth/Minneapolis
Von Maur
West Publishing Company

Attorney Clients:

Archbald & Spray, Santa Barbara
Doherty, Rumble & Butler, Minneapolis
Dorsey & Whitney, Minneapolis
Faegre & Benson, Minneapolis
Fennemore Craig, Phoenix
Foley & Lardner, Milwaukee
Fredrikson & Byron, P.A., Minneapolis
Fisk, Karr, Katz & Regan, Ltd., Chicago
Fryberger, Buchanan, Smith .... Duluth
Garvey, Schubert & Barer, Seattle
Gross & Welch, Omaha
Hauft, Fride, O'Brien, Harris .... Duluth
Humphrey, Farrington .... Independence
Johnson, Killen, Duluth
Johnson, Mercer, Hearn, Vinegar, Raleigh
Jones, Day, Reavis & Pogue, Cleveland
Landels, Ripley, Diamond, San Francisco
Leonard, Street & Deinhard, Minneapolis
Lockridge, Grindal, Nauen ... Minneapolis
Morrison & Foerster, Denver & San Francisco
Neill, Terrill & Embree, Kansas City
O'Keefe, Ashenden, Lyons & Ward, Chicago
Peters & Chunka, Lincoln, NE
Robbins, Kaplin, Miller & Ciresi, Minneapolis
Siegel, Brill, Greupner & Duffy, Minneapolis
Sonnenschein, Nath & Rosen .. San Francisco
Vorys, Sater, Seymour and Pease, Columbus
Walsh, Colucci, Stackhouse, ... Arlington
Winston & Strawn, Chicago
Zionz, Chestnut, Varnell, Berley .... Seattle

Institutional Clients:

Cedar Rapids City Assessor's Office
City of Duluth
Lake County, Minnesota
McLennan Appraisal District, Waco, TX
State of Minnesota
North Carolina Department of Revenue
Rock Island Board of Review
St. Louis County, Minnesota
College of St. Scholastica
Seaway Port Authority
Superior, Wisconsin Assessor's Office
Tarrant Appraisal District, Fort Worth, TX
University of Minnesota, Duluth
Washington State Dept of Revenue

Published Articles:

Ramsland, Maxwell O., Jr., "Ellwood: A Practitioner's Observations" *The Appraisal Journal*, [Chicago: American Institute of Real Estate Appraisers], July 1971.

Ramsland, Maxwell O., Jr., "Residential Mortgage Terms: A Comparative Analysis" *Valuation*, Vol. 18, No. 1, [Washington, DC: American Society of Appraisers], April 1971.

Ramsland, Maxwell O., Jr. and William F. Latham, "Appraisal Aid: A Pilot Project" *Valuation*, Vol. 18, No. 2, [Washington, DC: American Society of Appraisers], November 1971.

Ramsland, Maxwell O., Jr., "Appraisers, Creating a Valuation Model" *Asbestos Issues*, Vol. 3, No. 4, [Fort Collins, CO: Mediacom, Inc.], April 1990

Ramsland, Maxwell O., Jr., "An Asbestos Assessment Model: A Valuation Methodology for Appraisers" *Environmental Watch*, Vol. III, No. 1, [Chicago: Research Department of the American Institute of Real Estate Appraisers], Spring 1990

Ramsland, Maxwell O., Jr., "Asbestos: Risk and the Remediation Process" *Technical Report Measuring the Effects of Hazardous Materials Contamination on Real Estate Values: Techniques and Applications*, [Chicago: Appraisal Institute], 1992

Ramsland, Maxwell O., Jr., "Malls: Real Estate and Business Enterprise Values" *ICSC Financial Management Conference*, [New York: International Council of Shopping Centers] 1992

Wilson, Albert R., Maxwell O. Ramsland, Jr., Thomas Wilhelmy, and Roger Groves,"Ad Valorem Taxation and Environmental Devaluation Part I: An Overview of the Issues and Processes" *Journal of Property Tax Management* [New York: Panel Publishers], Summer 1993

Wilson, Albert R., Maxwell O. Ramsland, Jr., Thomas Wilhelmy, and Roger Groves,"Ad Valorem Taxation and Environmental Devaluation Part II: Standards of Proof and Case Law Outline" *Journal of Property Tax Management* [New York: Panel Publishers], Fall 1993

Ramsland, Maxwell O., Jr., "Valuation of Asbestos-Impaired Property" *Asbestos Risks and Medical Advances*, Vol. 8 of the Sourcebook on Asbestos Diseases: Medical, Legal, and Engineering Aspects by Peters, George A. and Barbara J., [Salem, NH: Butterworth Legal Publishers], October 1993

Ramsland, Maxwell O., Jr. and Daniel E. Markham,"Hotel Ad Valorem Tax Issues: The Separate Components of Value" Ramsland & Vigen, Inc., October 13, 1993. WORKING PAPER

Ramsland, Maxwell O., Jr. and Daniel E. Markham,"Real Estate Problem Solving Through Econometric Methods" *IPT Twentieth Annual Conference*, [Atlanta: Institute of Property Taxation], June 1996.

Ramsland, Maxwell O., Jr. and Daniel E. Markham, "Market-Supported Adjustments Using Multiple Regression Analysis" *The Appraisal Journal*, [Chicago: Appraisal Institute], April 1998.

Ramsland, Maxwell O., Jr. and William N. Kinnard, Jr., "Quantifying Business Enterprise Value for Malls" *The Appraisal Journal*, [Chicago: Appraisal Institute], April 1999.

Colwell, Peter F. and Maxwell O. Ramsland, Jr.,"Coping with Technological Change: The Case of Retail" *The Journal of Real Estate Finance and Economics*, Volume 26, Issue 1, January 2003.

QUALIFICATIONS OF THE APPRAISER

John M. Vigen, SRA, RM

Present Position:	Ramsland & Vigen, Inc. Real Estate Appraisers & Consultants Lonsdale Building 302 West Superior Street, Suite 600 Duluth, Minnesota 55802
Past Real Estate Experience:	Thirty-three years real estate experience consisting of appraisals, residential and commercial sales, and property management.
Professional Associations:	Appraisal Institute Lake Superior Chapter No. 183 (Past President 2008) Duluth Board of Realtors Minnesota Association of Realtors GRI Designation
License:	Minnesota Real Estate Appraiser - #4000928 Certified General Classification Wisconsin Real Estate Appraiser - #750-030 Certified General Classification
Member:	RM Designation #1363 (1979) (Former American Institute of Real Estate Appraisers) SRA Designation, Certification #909007 (1980) (Former Society of Real Estate Appraiser's) Certified Instructor, State of Minnesota Department of Securities, Real Estate Division
Real Estate Appraisal Education:	Compliant with qualifying and continuing education requirement for: Appraisal Institute - State of Minnesota - State of Wisconsin Uniform Standards of Professional Appraisal Practice Land Trust Alliance Symposiums (1996-2005)

Real Estate Appraisal Education Continued:

National Conservation Training Center (1999)
Land Conservation Strategies

Federal Land Exchanges & Acquisitions - (2000)

Appraisal Seminars/Courses of Diverse Content (1975-2005)

Representative Client List:

3M Real Estate Department
Conservation Fund
Employee Relocation Council
Federal Deposit Insurance Corporation
Iron Range Resources & Rehabilitation Board
CTV Mining Company, Lands and Minerals Division
Metropolitan Federal Bank
Minnesota Cities of:
Cromwell
Cloquet
Duluth
Grand Marais
Hermantown
Moose Lake
Proctor
Minnesota Counties: St. Louis, Lake Cook, Koochiching, and Aitkin.
Minnesota Department of Natural Resources
Minnesota Land Trust
Minnesota Parks and Trails
Minnesota Power and Light Company
Nature Conservancy
North Shore Bank of Commerce
Potlatch Corporation
Republic Bank of Duluth
Soo Line Railroad
City of Superior, Wisconsin
Community Development Program
State of Minnesota
Appraiser Contract No. 7M-2552
United States Forest Service
University of Minnesota
Office of Real Estate Coordinator
U.S. Bank System
USX
Northern Land & Minerals Division
Wells Fargo
Western National Bank

QUALIFICATIONS OF THE APPRAISER

Gary A. Battuello, MAI

Present Position:	Ramsland & Vigen, Inc. (1981 - present) Real Estate Appraisers & Consultants 302 West Superior Street #600 Duluth, Minnesota
Member:	Appraisal Institute – Lake Superior Chapter MAI Designation, Certificate No. 7477
Licenses:	Minnesota Real Estate Appraiser - #4000939 (Cert General) Wisconsin Real Estate Appraiser - #16-010 (Cert General)
Academic Education:	University of Minnesota Graduate School of Business and Economics Masters of Business Administration (1992)
	University of Wisconsin-Superior Data Processing Major, B. S. - Summa Cum Laude (1983)
	Michigan Technological University Engineering (1970 - 1972)
Appraisal Education:	SREA Courses, University of Wisconsin Course 101 (1977) R-2 examination (1978) Narrative Report Seminar (1978) AIREA Courses, University of Minnesota Capitalization II and III (1983) 2-2, Report Writing (1984) 2-3, Standards of Professional Practice (1985) AIREA Examinations Capitalization I (1983) 1A-2, Procedures (1984) 2-1, Case Studies (1984) 6, Real Estate Investment Analysis (1985) Recent Appraisal Institute Seminars Report Writing (2004) Rates & Ratios (2004) USPAP Update (2003) Separating Real & Personal Property from Intangible Business Assets (2003) Condemnation Appraising – Advanced Topics (2002) Attacking and Defending Appraisals in Litigation (2001) Federal Land Exchanges (2000) Case Studies in Commercial Highest and Best Use (2000)

Battuello (continued)

Publications:

"Appraisal Issues in the Valuation of Extremely Large Buildings," *The Appraisal Journal*, (October 1996): 394-398, The Appraisal Institute, Chicago

"The Impact of Real Property Taxation Upon Economic Development," Master's Dissertation, 1992, University of Minnesota

Mr. Battuello is an acknowledged contributor to the recently published "Appraising Industrial Properties" text of the Appraisal Institute (2005)

Partial List of Clients:

Aluminum Corporation of America
Bankers Trust, New York
Burlington Northern Railroad
Container Corporation of America
Duluth, Missabe and Iron Range Railway
Federal Deposit Insurance Corp. (FDIC)
General Electric
Great Lakes Gas Transmission Company
Hallett Dock Company
J. I. Case & Company
JMB Properties, Inc., Chicago
Jeno's, Inc.
Knight-Ridder Publishing
Koppers Company, Pittsburgh
M & I First National Bank of Superior, WI
Minnesota Department of Transportation
Minnesota Mining & Manufacturing
Minnesota Power
Montgomery Ward, Inc.
J. C. Penney Company, Inc.
Resolution Trust Corporation (RTC)
Sears Roebuck & Company
Soo Line Railway
Superior Water, Light & Power Co.
USX Corporation
West Publishing Company
Whirlpool Corporation
Winnebago Industries

The Appraisal Institute conducts a voluntary program of continuing education for its designated members. MAIs and RMs who meet the minimum standards of this program are awarded periodic educational certification. I am currently certified under this program.

QUALIFICATIONS OF THE ASSOCIATE

Shannon M. Luepke

Present Position:

Associate Appraiser
Ramsland & Vigen, Inc.
Real Estate Appraisers & Consultant
302 West Superior Street, Suite 600
Duluth, Minnesota

Education:

Brigham Young University
Provo, Utah
Bachelor of Science (2002), Statistics

Appraisal Institute
- Course 110 - Real Estate Appraisal Principles (Feb 2004)
- Real Estate Appraisal Procedures (Feb 2005)
- Course 310 - Basic Income Capitalization (April 2005)
- Course 540 - Report Writing Valuation Analysis (May 2006)
- Course 510 - Advanced Income Capitalization (June 2006)

Prosource
- National USPAP 15 Hour Course (August 2005)

University of St. Thomas, Minneapolis
- Legal Issues in Real Estate (January 2005)
- Urban Land Economics (August 2005)
- Advanced Topics (January 2006)

Ramsland & Vigen, Inc., is a real estate appraisal and consulting firm with offices in Duluth, Minnesota. The firm's experience ranges from a national litigation appraisal practice to a regional base serving Minnesota, Wisconsin and the Lake Superior region. The national litigation experience has traditionally involved recognized retail, distribution and publishing companies. The firm also specializes in the analysis and valuation of intercity mixed-use developments, hotels, regional shopping centers, and large industrial and distribution properties. Regional services include more traditional valuation assignments: financial underwriting, ad valorem, eminent domain, economic feasibility, arbitration, bankruptcy, litigation support, asset allocation, and insurance valuation.

The firm specializes in the area of department store valuation, maintaining an extensive data base on department store sales, rental rates, ground rent, and productivity analysis. Econometric models have been developed employing this data. The firm has also expertise in real estate problem areas such as financial workouts, hazardous waste and asbestos.

Ms. Luepke is familiar with and employs the statistical techniques used in various department store, mall, and warehouse analysis, and has prepared complete appraisal reports in various venues under the supervision of Mr. Ramsland.