Industrial Land Use and Employment Policy Plan for the City of Minneapolis, Minnesota: Technical Report

Prepared for:
City of Minneapolis
Minneapolis, Minnesota

June 2006

Maxfield Research Inc.

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Maxfield Research Inc.

June 1, 2006

Jennifer Jordan
Project Manager
Industrial Land Use and Employment Policy Plan
Department of Community Planning and Economic Development
City of Minneapolis
Crown Roller Mill Building
105 5th Ave S
Minneapolis, Minnesota 55401

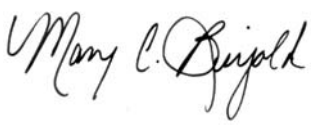
Dear Ms. Jordan:

We are pleased to present a final copy of the Technical Report for the Industrial Land Use and Employment Policy Plan. The purpose of this document is to provide background information, methodologies, data, and more detailed analysis for the project. This document is intended to support the conclusions and recommendations of the main document, entitled, "Industrial Land Use Study and Employment Policy Plan."

We hope elected officials, city staff members, and community members will utilize our analysis to inform current and future policymaking and land use planning.

We greatly enjoyed working with you.

Sincerely,



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Purpose and Scope of Study

Maxfield Research Inc. was engaged by the City of Minneapolis to analyze current industrial employment and land uses, and provide the City with a clear policy direction for future industrial land use and industrial employment policies in the City of Minneapolis. This document presents additional background information and technical documentation compiled during the course of the study.

The technical document reports on both the demand and supply sides of the market for industrial land and industrial employment. The first sections of this document present the employment analysis. Later sections of this document focus on the supply side, analyzing the current amount of industrial land, the quality and type of existing properties, and current zoning policy, among other topics. The synthesis of the demand and supply analyses provides information on the current direction of the industrial land market, identifies opportunities to increase the number and quality of employment, and recommends a clear policy direction for the City.

This report includes both primary and secondary data. Secondary data is credited to the source when used. Most data is from Minnesota Department of Employment and Economic Development. Other sources include the U.S. Census Bureau, the Minnesota Commercial Association of Realtors, and InfoUSA. For a detailed discussion of data sources and methodologies, see **Appendix I**.

Introduction

Employers are the users of industrial land and their needs and desires determine what the market offers. In addition, a thorough understanding of employment potential allows the City to assist the suppliers of industrial properties to offer the type of products that will attract high quality employment. Ultimately increasing the overall base and quality of employment is the paramount goal for City development. Therefore, a comprehensive analysis of the City's existing employment base is critical to understanding future needs and opportunities.

Key Factors

In reviewing the employment data, there are three factors to consider that have affected industrial employment:

1. **The 2001-2004 Recession and Recovery.** Between 2000 and 2004, the Metro Area lost approximately -42,000 jobs. Examining this period in the City of Minneapolis, many of the job losses were part of a cyclical regional contraction and would have occurred regardless of any City employment or industrial land use policy in place. We believe however, that an effective policy would have mitigated and would mitigate in the future economic losses resulting from such a contraction.

2. **Long-Term Economic Trends.** We identified six long-term economic trends affecting industries and employment nationally and regionally. Some of the data reflects the effects of these trends on employment. (See Citywide Employment Analysis section for more detailed description of the six trends.) We believe an effective City policy would maximize employment and business opportunities with these trends in mind.

3. **Infrastructure and Land Supply Issues Particular to the City of Minneapolis.** Finally, some of the employment changes occurring in Minneapolis in the last 10 or 15 years are related to the particulars of the City's industrial land supply, the City's zoning policy, and economic development practices. There is evidence to suggest that the City is losing some industrial employers to other jurisdictions because of high land costs, obsolete facilities and infrastructure, increasing taxes, and negative issues associated with public safety. The loss of industrial employers is the most important part of the analysis. It is difficult however, to assess this effect via the employment data and we have used alternative analyses to obtain this information, such as the land inventory and focus groups.

In reality, the above factors are intertwined. For example, an employer experiencing decreased sales as a result of the 2001-2004 Recession may consider moving his or her company to another jurisdiction because the industrial land costs are lower. The resulting loss in employment to the City has been caused by the Recession and the City's limited industrial land supply.

This study identifies where employment changes in the City of Minneapolis have been driven by infrastructure and land supply issues. This is the area where the City can have the greatest impact by better defining industrial land policy. It is also important for City policy makers to

keep other economic trends in mind, to capitalize on opportunities to improve the overall quality of employment and economic development in the City.

Throughout this analysis, we discuss how these factors explain employment changes in the City. The data does not however, directly reveal which cause is driving employment changes in the City. Infrastructure and land supply issues are discussed in greater detail in the industrial land supply analysis and through our focus groups and individual interviews.

The following employment analysis is divided into five sections:

1) Analysis of resident labor force in Minneapolis
2) Review of citywide employment including employment by industry (1990 through 2004) and 2010 to 2020 projections.
3) Analysis of industry clusters and competitive advantages for the City including how employment policy could be focused on these industries.
4) Estimate industrial employment in the City and for four areas of analysis.
5) Examination of wage levels in the City and estimating the number of jobs that start at a living wage.

Introduction

This section looks at workers who live in the City of Minneapolis, providing estimates on the number of workers, occupations, education levels, and commute patterns. Later sections address workers that are employed in Minneapolis, but who do not necessarily live in the City.

Understanding the Context: Population and Household Growth Trends

Population and household growth trends provide a context for understanding the Minneapolis labor market and economy. Table 1.1 shows projected population and household growth trends for the City of Minneapolis, the Seven County Metropolitan Area, and the State of Minnesota from 1990 through 2020.

The following are key points the table.

- In 2000, the population of the City of Minneapolis was 382,747, or about 14% of the entire metro area. The City of Minneapolis grew at a much slower rate than the Metro Area as a whole between 1990 and 2000. The City of Minneapolis grew by 14,000 people, or 4%, between 1990 and 2000. Over the same period, the Twin Cities Metro Area grew by 353,000 people, or 15%.

- Between 2000 and 2010, the population growth rate in the City of Minneapolis is projected to increase slightly from the previous decade, while the population growth rate for the Metro Area is projected to decrease slightly. The population of the Minneapolis is projected to increase by another 19,000 people, an increase of 5%, and the Twin Cities Metro Area is projected to increase by 363,000 people, an increase of 14%.

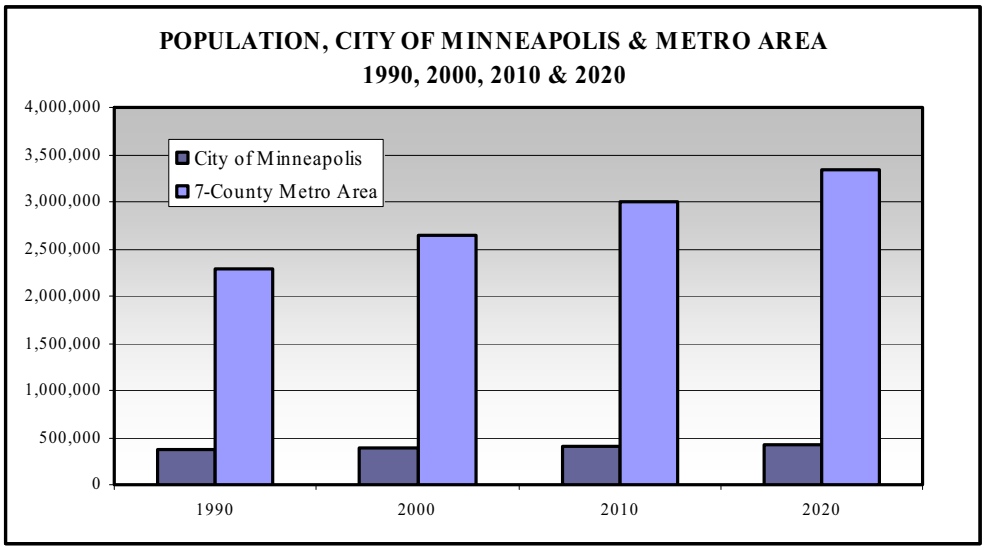
- The number of households in Minneapolis increased by 1,670 households (+1.0%) between 1990 and 2000. Between 2000 and 2010, Minneapolis is projected to add 9,648 households, an increase of 6%. The Metro Area is projected to add 176,121 more households between 2000 and 2010, an increase of 17%.

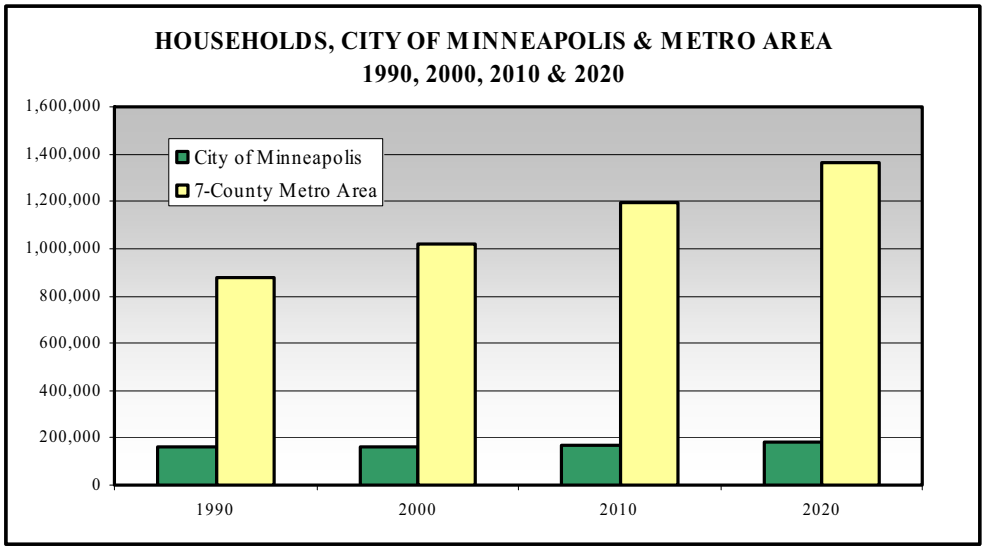
- There has been discussion among some policy makers that the Metropolitan Council's projections are too conservative for Minneapolis, and that with the increase in the number of housing units in some areas of the City, these figures are too low. Discussions with City planning staff indicate that the two agencies work closely in determining and revising these projections. For this reason, we use the Metropolitan Council projections for this analysis.

TABLE 1.1
POPULATION AND HOUSEHOLD GROWTH TRENDS AND PROJECTIONS
CITY OF MINNEAPOLIS
1990 to 2020

	-- U.S. Census --		-- Met Council --		---- Change ---- 1990-2000		2000-2010		2010-2020	
	1990	2000	2010	2020	No.	Pct.	No.	Pct.	No.	Pct.
Population										
City of Minneapolis	368,383	382,747	402,000	423,000	14,364	3.9	19,253	5.0	21,000	5.2
7-County Metro Area	2,288,729	2,642,062	3,005,270	3,334,160	353,333	15.4	363,208	13.7	328,890	10.9
State of Minnesota	4,375,099	4,919,479	5,452,500	5,909,400	544,380	12.4	533,021	10.8	456,900	8.4
Households										
City of Minneapolis	160,682	162,352	172,000	181,000	1,670	1.0	9,648	5.9	9,000	5.2
7-County Metro Area	875,504	1,021,459	1,197,580	1,361,870	145,955	16.7	176,121	17.2	164,290	13.7
State of Minnesota	1,647,853	1,895,127	2,182,200	2,440,800	247,274	15.0	287,073	15.1	258,600	11.9

Sources: U.S. Census Bureau; Metropolitan Council; Minnesota Department of Employment and Economic Development; Minnesota Department of Adminstration; Maxfield Research Inc.





Key Labor Force Trends

As a result of demographic, social, and political changes occurring across the country, the national labor force will change and evolve over the next 50 years. These trends will also dramatically affect the labor force in Minneapolis and it is important to keep these trends in mind when developing an employment policy for the City. Below are four key trends that will change the nature of the Minneapolis labor force over the next 50 years.

- **Slower growth in the labor force.** According the U.S. Bureau of Labor (BLS) statistics, the labor force in the U.S. grew at average annual rate of 1.6% between 1950 and 2000, a relatively high growth rate historically. This high rate was driven by the entrance of the baby boom generation into the labor force and higher participation rates for female workers. Between 2000 and 2050, the average annual growth rate is project to be only 0.6%. This means fewer new workers will be entering the labor force each year than had been entering in the 50 years prior. Depending on overall economic conditions, this trend may translate into worker shortages in the next 50 years.

- **Slowdown in the growth in the female labor force.** The labor force participation rate of women was 34% nationally in 1950, according to the BLS. In 2000, this rate had jumped to 60%. Between 1950 and 2000, the number of female workers grew by an average annual rate of 2.6%. That rate is expected to decline to 0.7% between 2000 and 2050. Female labor participation rates increase as a result of the fact that women have remained single more often, many have married at older ages, women have stayed in school longer, women have postponed childbirth, and divorce rates have increased. All of these trends have meant increases in participation rates. Demographers do not expect changes in these recent trends over the next 50 years. They do not expect the results however, to be as dramatic as they have been in the previous 50 years.

- **Increase in the percentage of older workers in the labor force.** The BLS projects that the 55-and-older age group, which made up 13% of the labor force in 2000, will make up 19% in 2050. This trend is primarily due to the aging of the baby boomer generation. In 2000, the median age of the labor force was 39.3. Prior to the retirement of the baby boomers which is expected to begin in 2015, the median age is projected reach its peak at 40.6 in 2010. It is projected to decline gradually over the next 40 years and is projected to be at 39.7 in 2050, still relatively higher than in the period from 1970 to 2000.

  In certain industries where employment is stable, the aging workforce means many replacement positions will be needed in next 20 years. This replacement effect occurs frequently in professional occupations that tend to be relatively stable through business cycles and where the turnover rate tends to be low. Examples include professional and technical occupations and management occupations. In the Twin Cities Metro Area, the Minnesota Department of Employment and Economic Development projects 400,000 workers will be needed between 2002 and 2012 to replace existing workers in jobs. Over the same period, 257,000 workers will be need for newly-created jobs.

- **Increased ethnic diversity in the labor force.** The labor force in the U.S. became more ethnically and racially diverse between 1950 and 2000, and the trend is expected to continue into the next 50 years. The BLS projects the white non-Hispanic portion of the labor force will decline from 73% in 2000 to 54% in 2050. In 2050, Hispanic workers are projected to make up 23% of the labor force, African Americans are projected to make up 15% of the labor force, and Asian American are expected to make up 10% of the labor force. These trends follow a large influx of immigrant workers in recent years, a group that is often made up of younger workers who participate in the workforce at higher rates.

These trends suggest that an effective employment policy will be necessary in the next 50 years at all levels of government. Government will be called on to assist employers to make the most effective use of a labor force that is seeing slower growth and more diversity. It will be critical to improve training opportunities and infrastructure improvements to allow employers to be as competitive as possible given these labor force trends and a rapidly changing competitive environment.

Resident Labor Force

Table 1.2 shows resident employment for the City of Minneapolis, the Seven-County Metro Area, and the State of Minnesota. Key points from the table follow.

- The resident labor force totaled about 224,000 in 2004, for an estimated participation rate of about 57%.

- One of the key trends identified was a slowing of the labor force growth. Between 1994 and 2004, Minneapolis saw only a slight increase in the resident labor force, increasing by 2,300 or about 1%. In comparison, over the same period, the labor force of Minnesota grew by 12%.

- This data suggests that labor force participation rates are declining for residents in Minneapolis, which reflects an aging population combined with an influx of families with children. This trend, already seen in the Minneapolis data, is expected to occur nationally, where the labor force is projected to grow by an annual average of 0.6% between 2000 and 2050.

- Given the high number of businesses located in Minneapolis, the City is a net importer of labor, with more workers than residents who work. The resident labor force, both employed and unemployed, in Minneapolis was 224,423 in 2000. The number of workers in the City was 309,352, shown in Table 7.

- The resident labor force is made up of people who are employed and unemployed. People who do not have jobs and are not actively looking for work are not considered unemployed. These people are not considered part of the labor force. For this reason, the resident labor force may decline or increase from year to year, even though the resident population does not fluctuate. Labor force declines were seen in 1996, 1997, 2001, and 2002 in Minneapolis.

- The unemployment rate in Minneapolis has tracked closely with the unemployment rate in both the Metro Area and the State as a whole, although in general it has been somewhat higher than the Metro Area. The 2001 through 2004 period – a period of recession and recovery both locally and nationally – saw the highest unemployment rates over the last ten years, with rates ranging from 3.97% to 5.29%.

- Minneapolis saw declines in the number of people employed in 1996, 2001, 2002, and 2003. These declines were more dramatic in percentage terms than for the Metro Area and the State as a whole.

TABLE 1.2
RESIDENT LABOR FORCE
CITY OF MINNEAPOLIS
1994 THROUGH 2004

City of Minneapolis

	Labor Force	Employed Persons	Unemployment Rate	Employment Change in %
2004	224,220	212,894	5.05%	1.39%
2003	221,703	209,968	5.29%	-0.50%
2002	222,102	211,017	4.99%	-2.19%
2001	224,679	215,750	3.97%	-0.77%
2000	224,423	217,415	3.12%	0.77%
1999	221,795	215,744	2.73%	0.33%
1998	220,607	215,030	2.53%	1.44%
1997	218,783	211,982	3.11%	-0.52%
1996	221,627	213,098	3.85%	-2.23%
1995	225,283	217,966	3.25%	1.95%
1994	221,954	213,790	3.68%	---

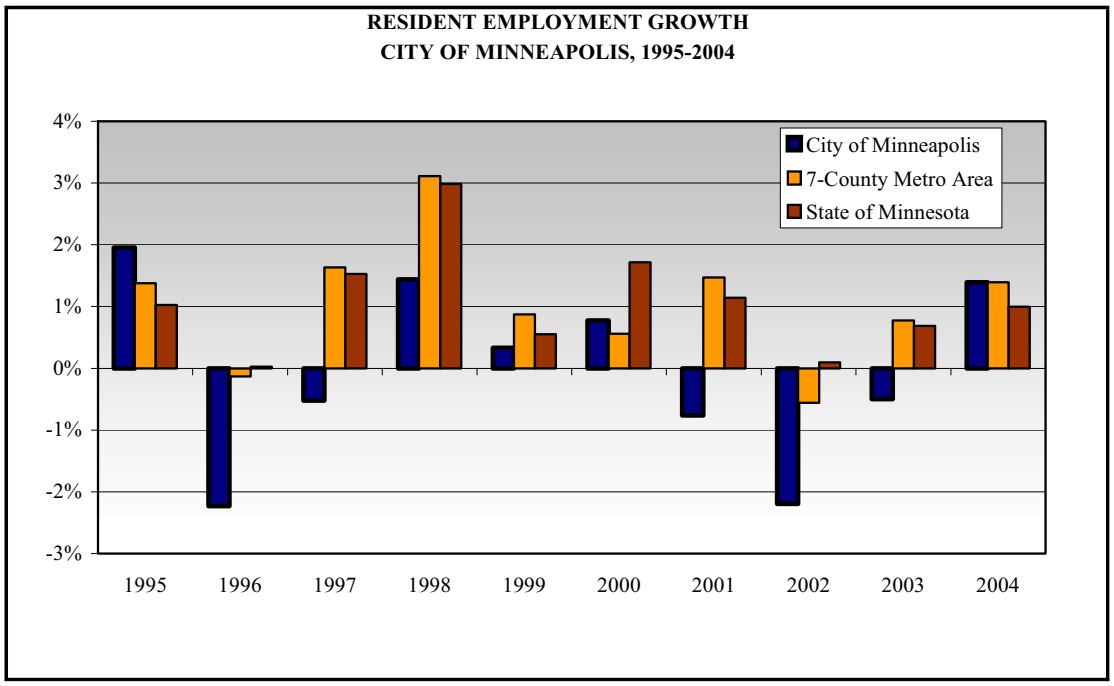
7-County Metro Area

	Labor Force	Employed Persons	Unemployment Rate	Employment Change in %
2004	1,631,511	1,559,798	4.40%	1.39%
2003	1,613,275	1,538,363	4.64%	0.77%
2002	1,596,496	1,526,567	4.38%	-0.56%
2001	1,590,780	1,535,151	3.50%	1.47%
2000	1,555,856	1,512,893	2.76%	0.56%
1999	1,537,423	1,504,474	2.14%	0.87%
1998	1,520,662	1,491,490	1.92%	3.11%
1997	1,481,903	1,446,458	2.39%	1.63%
1996	1,467,036	1,423,215	2.99%	-0.13%
1995	1,466,617	1,425,119	2.83%	1.38%
1994	1,451,364	1,405,735	3.14%	---

State of Minnesota

	Labor Force	Employed Persons	Unemployment Rate	Employment Change in %
2004	2,951,682	2,813,831	4.67%	1.00%
2003	2,929,370	2,786,091	4.89%	0.69%
2002	2,899,623	2,767,058	4.57%	0.10%
2001	2,875,568	2,764,353	3.87%	1.14%
2000	2,823,168	2,733,110	3.19%	1.72%
1999	2,763,825	2,686,942	2.78%	0.55%
1998	2,742,076	2,672,248	2.55%	2.99%
1997	2,682,155	2,594,740	3.26%	1.53%
1996	2,661,926	2,555,753	3.99%	0.03%
1995	2,653,283	2,555,036	3.70%	1.02%
1994	2,634,611	2,529,161	4.00%	---

Sources: Minnesota Department of Employment and Economic Development; Maxfield Research Inc.



Resident Occupations

Table 1.3 shows the occupations of population of Minneapolis and the Metro Area in 2000. The following are key points from this table.

- Although the distribution of occupations in Minneapolis and the Seven-County Metro Area are relatively similar, workers in Minneapolis are more likely to work in Professional and Related Occupations and Food Preparation and Service Occupations, and less likely to work in Management, Business, and Financial Operations Occupations, Office and Administrative Support Occupations, and Sales and Related Occupations.

- The largest occupation group for residents is Professional and Related Occupations, which makes up 27% of the labor force.

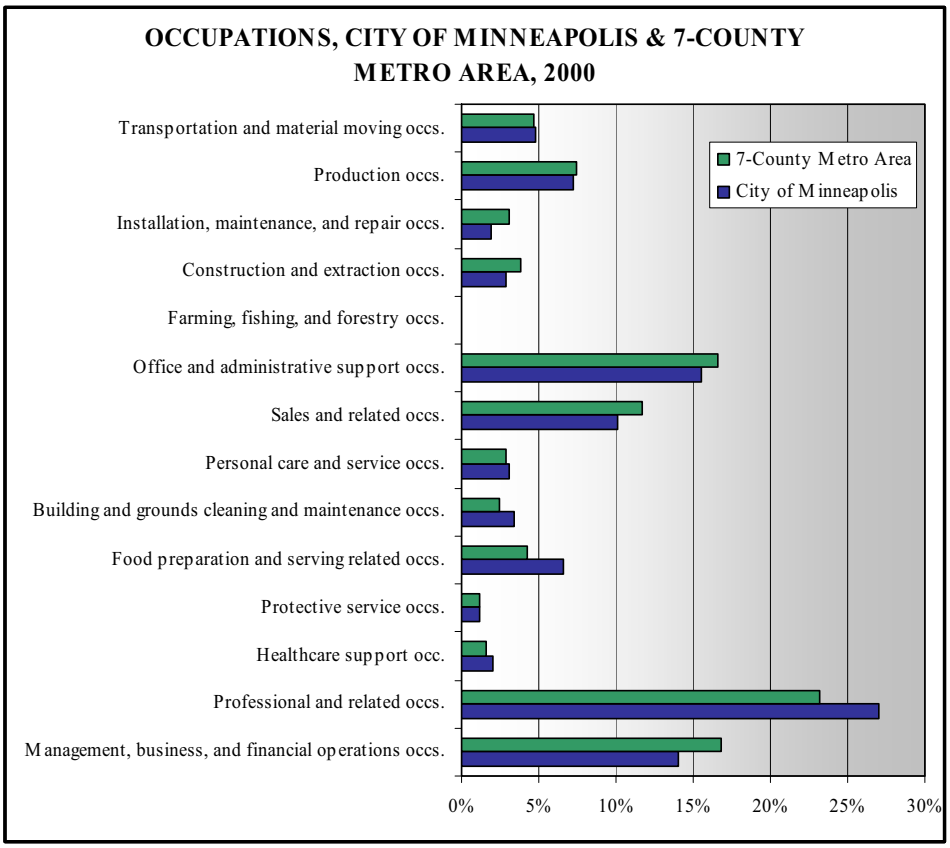
- Other occupation groups that make up a large portion of workers are Office and Administrative Support (16%); Management, Business, and Financial Operations (14%); and Sales and Related Occupations (10%).

- In general, the data suggests workers in Minneapolis tend to work more in professional occupations and traditional "blue-collar" occupations, whereas the entire Metro Area tends to have more workers who work in traditional "white-collar" occupations.

TABLE 1.3
OCCUPATIONS FOR POPULATION AGE 16 YEARS OLD AND OLDER
CITY OF MINNEAPOLIS AND 7-COUNTY METRO AREA
2000 CENSUS

	City of Minneapolis		7-County Metro Area	
	Number	Pct.	Number	Pct.
Management, business, and financial operations occs.	29,214	14%	243,050	17%
Professional and related occs.	56,195	27%	334,923	23%
Healthcare support occ.	4,261	2%	23,616	2%
Protective service occs.	2,377	1%	16,223	1%
Food preparation and serving related occs.	13,677	7%	61,935	4%
Building and grounds cleaning and maintenance occs.	7,045	3%	34,622	2%
Personal care and service occs.	6,411	3%	41,998	3%
Sales and related occs.	20,972	10%	169,523	12%
Office and administrative support occs.	32,385	16%	240,051	17%
Farming, fishing, and forestry occs.	283	0%	2,142	0%
Construction and extraction occs.	6,010	3%	55,773	4%
Installation, maintenance, and repair occs.	4,015	2%	44,907	3%
Production occs.	15,048	7%	106,792	7%
Transportation and material moving occs.	9,997	5%	67,910	5%
Total:	**207,890**	**100%**	**1,443,465**	**100%**

Sources: U.S. Census Bureau; Maxfield Research Inc.



Resident Education Levels

Table 1.4 shows the educational attainment of the workforce age 25-years old and older for Minneapolis and the Seven-County Metro Area in 1990 and 2000. The following are key points from the table.

- Compared to the Metro Area, Minneapolis has larger portions of workers without a high school diploma and with graduates and professional degrees. The Metro Area has larger percentages of workers with high school diplomas, some college, and associate degrees.

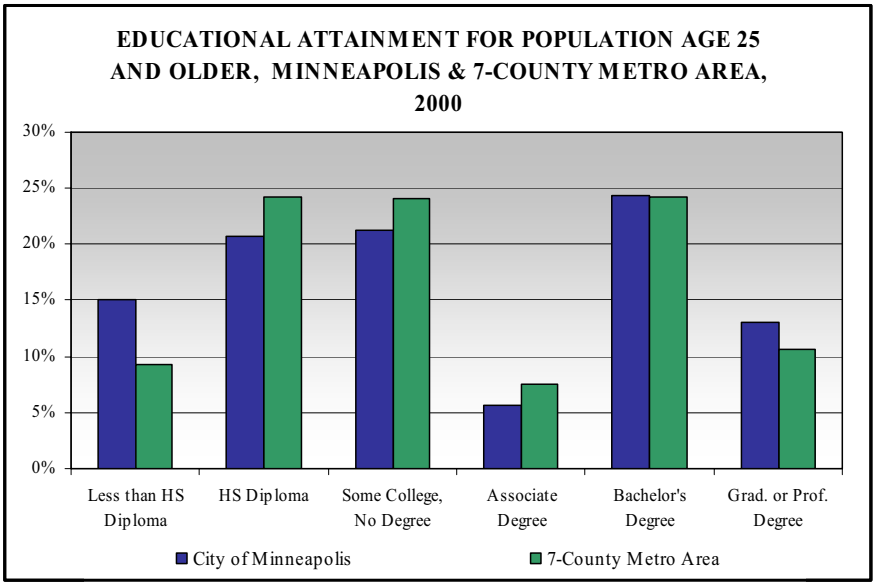
- The data show that education levels have increased in Minneapolis and the Metro Area. In 2000, residents with Bachelor's Degrees made up the largest group residents (24%), a change from 1990 when the largest group of residents (25%) had only a high school diploma.

- A similar trend can be seen in the 2000 Metro Area data, where education levels were evenly distributed between high school diploma, some college, and bachelor's degree, with 24% of residents having each of these levels of educational attainment. In 1990, the largest group of residents (29%) had only a high school diploma.

TABLE 1.4
EDUCATIONAL ATTAINMENT FOR RESIDENTS 25 YEARS OLD AND OLDER
CITY OF MINNEAPOLIS AND 7-COUNTY METRO AREA
1990 & 2000

	1990		2000		1990 to 2000	
Eduational Attainment	Number	Pct.	Number	Pct.	Number Change	Pct. Change
City of Minneapolis						
Less than HS Diploma	42,448	17%	36,621	15%	-5,827	-14%
HS Diploma	62,004	25%	50,495	21%	-11,509	-19%
Some College, No Degree	49,628	20%	51,674	21%	2,046	4%
Associate Degree	15,768	6%	13,592	6%	-2,176	-14%
Bachelor's Degree	50,121	21%	59,224	24%	9,103	18%
Grad. or Prof. Degree	23,707	10%	31,803	13%	8,096	34%
7-County Metro Area						
Less than HS Diploma	162,224	12%	157,647	9%	-4,577	-3%
HS Diploma	377,977	29%	412,907	24%	34,930	9%
Some College, No Degree	278,654	21%	409,609	24%	130,955	47%
Associate Degree	111,653	8%	128,876	8%	17,223	15%
Bachelor's Degree	276,566	21%	411,587	24%	135,021	49%
Grad. or Prof. Degree	111,704	8%	181,464	11%	69,760	62%

Sources: U.S. Census Bureau; Maxfield Research Inc.



Resident Labor Force Summary

Key points to take away from the resident labor force analysis are:

- The national labor force is expected to grow at a slower rate between 2000 and 2050 than it did between 1950 and 2000. We expect the City's resident labor force to follow the same trend.

- The resident labor force totaled about 224,000 in 2004, for an estimated labor force participation rate of about 57%.

- The unemployment rate in Minneapolis has tracked closely with the unemployment rate in both the Metro Area and the State as a whole, although in general it has been somewhat higher than the Metro Area.

- In general workers in Minneapolis tend to work more in professional occupations and traditional "blue-collar" occupations, whereas the entire Metro Area tends to have more workers who work in traditional "white-collar" occupations.

- Compared to the Metro Area, Minneapolis has larger portions of workers without a high school diploma and with graduate and professional degrees. The Metro Area has larger percentages of workers with high school diplomas, some college, and associate degrees.

- About 111,000 people both live and work in Minneapolis, making up 51% of the labor force.

Introduction

The previous section looked at key labor market trends and the resident workforce in Minneapolis. This section examines key industry trends and their impact on current employment in the City, including workers who live with in the City and those who live outside the City.

The 2001-2004 Recession and Recovery

Following national economic trends, between 2000 and 2004, the Seven-County Metro Area lost approximately -42,000 jobs, a decline in overall employment of -2.6%. While the exact cause of the 2001 Recession is still being debated – Federal fiscal policy, speculative tech bubble in the U.S. stock market, normal ebb and flow of the business investment cycle or inventory cycle, the dramatic economic shock of the events of September 11th, etc. – the Recession clearly had an impact on the economy and labor market in Minneapolis. The analysis that follows shows a dramatic decline in the overall employment over this period, especially in certain industries.

We believe there is a connection between industrial land supply and infrastructure in Minneapolis and the effects of the 2001 Recession. Employers making employment reductions resulting from the recession effects may choose to close older, less-optimal facilities over newer facilities, or choose to close facilities in areas with higher lease rates, both decisions that would adversely affect industrial space demand in Minneapolis.

However, it is important to put job losses related to the Recession in perspective. All jobs lost during the 2000 to 2004 period cannot be attributed to industrial space and infrastructure issues. Much of the loss is directly attributable to the regional and national recession. We believe a citywide industrial land use and employment policy can mitigate the effects of such a recession – by addressing industrial land and infrastructure issues that may compound the problem – but it will not protect the City from such national and regional fluctuations in economic conditions.

Key Long-Term Economic Trends Affecting Employment

Above and beyond the effects of the 2001-2004 Recession and recovery, Maxfield Research Inc. identified six key economic trends that have dramatically affected industries and changed employment patterns in the last 10 to 15 years. The trends apply to national, regional, and City employment markets, and have affected all industries to a degree. We believe these trends will continue to impact employment over the next 10 to 15 years. An understanding of how these trends affect industries and ultimately employment is critical to develop an approach for industrial land use and employment.

The six trends are outlined below.

- **Dramatic changes in demography that effect demand for goods and services.** Demographic changes in the population have always driven demand for goods and services. The obvious example is the overall effect the baby boom had and continues to have on the de-

mand for consumer items ranging from deodorant to housing in this country. Businesses that provide goods and services must stay on top of these demographic trends in order to stay competitive. Some important demographic trends follow.

- **Aging of population.** An aging population means increased demand for senior housing, nursing homes, pharmaceuticals, and health services. It will also drive efforts to create innovative ways to produce these products and services.

- **Ethnic and racial diversity.** As the population of the nation as well as the Minneapolis becomes more diverse, new products and services will evolve to serve these new populations. Ethnic grocery stores, eating and drinking establishments, and financial services have already emerged to serve this population. We expect the list of industries responding to the needs of this new demographic will only continue to grow.

- **Consumer demand for technology.** Consumers have been drawn to technological advances that make their lives easier. Businesses and industries that respond to this need will continue to see growth.

- **Technology advances.** As with demographic changes, technological advances have always driven industry and employment trends. The difference recently has been the pace of technological advances. In traditionally-industrial industries, technology enhancements have increased the output each worker produces. The implementation of computer-controlled equipment has reduced the need to have as many operators in many industries. Machines have become more efficient, and processes have been automated. Another example of a shift caused by technology is in the trade industries, where "e-commerce" will result in fewer sales workers and more customer service worker to assist customers. Even for professional occupations within these industries, technology gains have increased the workers' ability to be more efficient. While technological advances typically mean fewer employees, this trend also translates into a shift from lower-skilled production workers to higher-skilled technicians and support workers. These advances will require existing workers to continually update skills. However, on the other side of the equation, several industries will see increases in employment because of a lack of technological advances. Certain industries within construction, food manufacturing, for example, are expected to see growth in employment because increases in demand for these services have not been offset by increases in technology and resulting improvements in productivity. Technological advances may also spawn new industries, as the technological capacity of some industries means they may develop new products or new ways to produce existing products.

- **New global market.** In the latter part of the 20th century, national governments removed trade barriers to encourage trade across international borders. The result has been the expansion of a world market of goods and services. Now businesses in Minneapolis that once competed with companies in New Jersey and California, compete with companies in Brazil and Indonesia. These local businesses see an expansion of their market for goods and services but also see increased competition from other suppliers in foreign markets. The elimination of trade barriers has also meant a transfer of production and manufacturing facilities to

operations in Asia and Latin America, to take advantage of lower cost structures. For some industries, the new global market has been a good thing, increasing their customer base and opportunity for expansion. For other industries, it has meant significant losses in employment. Competitive imports have all but eliminated certain industries in this country, as those industries cannot compete with foreign cost structures. The effects of the new global market have been seen in both low-skilled and high-skilled occupations. In some industries, professional occupations, such as computer programming and engineering, have been outsourced to foreign countries to take advantage of lower wages.

- **Increased emphasis on cost containment and improved efficiency.** In part, driven by the competition of the new global market and, in part, driven by cost conscious consumers, businesses have seen a new emphasis on containing costs and improving efficiency. In an ever increasing competitive environment, businesses that can provide the best product in the fastest time and at the least cost will thrive. Those companies that cannot will fall behind. This emphasis has meant facilities that used to run only eight hours in the day now run around the clock. Warehouses that stored six month's worth of inventory have become unnecessary as on-time delivery and inventory management systems make them obsolete. Obviously, this trend is closely linked to the technology trend, as the need for technological innovation is driven by the desire to provide the best product at the lowest price. This trend has caused several shifts in employment. Industries that support cost containment efforts – such as professional and business services industries – will see an increase in demand for employment, replacing employment in more inefficient models of business.

- **Consolidation of businesses.** A direct result of the increased emphasis on cost containment and improved efficiencies has been consolidation of businesses within an industry. The new competitive environment means certain industries will be dominated by a few highly efficient, profitable firms that have developed economies of scale in their business practices. These firms have established dominance through business strategies that enable them to be among the lowest cost producers in the industry. Consolidation has allowed companies to combine duplicative departments and shift operations to locations where the cost structures are the lowest. In most cases, the result of consolidation is a reduction in overall employment, and industries that see a good deal of consolidation also see overall reductions in employment.

- **Changing regulatory environment.** The regulatory environment in the United States has changed in two opposite directions. In some policy areas – environmental policy, for example – the regulatory environment has generally become more stringent in order to reduce harmful byproducts from production. In other policy areas – international trade and regulated industries, for example – many regulations have been removed with the overall goal of increasing competition and reducing costs to consumers. In both cases, industries have been forced to respond to these changes, and changes in employment have followed. The changing regulatory environment may mean increases in employment in certain industries. For example, new building code requirements at local levels of government mean an increase in demand for educated managers with construction science degrees in the construction industry. In other industries, as pointed out earlier, the changing regulatory structure may mean more consolidation of businesses, as businesses strive to reduce duplication and streamline

cost structures. For these industries, responding to the changed environment may mean reductions in employment overall.

Employment in the City of Minneapolis

Industry employment data is presented for the periods of 1990-2000, 2000-2004, and 2000-2020. The following are key trends derived from tables 6 and 7.

- Shown in Table 1.5, Minneapolis added 22,647 jobs between 1990 and 2000. Between 1995 and 2000, all industries except Manufacturing saw gains in employment. Manufacturing lost about 7,000 jobs over the period. By 2004, Minneapolis had an employment base of 282,491 jobs in 2004.

- Between 2000 and 2004, Minneapolis lost all of the jobs added between 1990 and 2000, plus some additional jobs, losing a total of -23,895 jobs over the period. The largest declines were seen in Professional and Business Services (-11,000 jobs), TTU (-6,600 jobs), Manufacturing (-6,400 jobs), and Information (-4,800 jobs).

TABLE 1.5
ESTIMATED COVERED EMPLOYMENT BY INDUSTRY
CITY OF MINNEAPOLIS
Annual Average 1990, 1995, & 2000

	Employment						Change			
	1990		1995		2000		1990-1995		1995-2000	
	No.	Pct.	No.	Pct.	No.	Pct.	No.	Pct.	No.	Pct.
City of Minneapolis										
Agriculture[1]	330	0.1	490	0.2	820	0.3	160	48.5	330	40.2
Construction	7,140	2.5	7,040	2.4	8,130	2.6	-100	-1.4	1,090	13.4
Manufacturing	39,690	13.8	37,330	12.8	30,350	9.8	-2,360	-5.9	-6,980	-23.0
TU[2]	21,740	7.6	20,570	7.1	21,080	6.8	-1,170	-5.4	510	2.4
Trade	55,750	19.4	53,750	18.5	55,660	18.0	-2,000	-3.6	1,910	3.4
FIRE	33,780	11.8	31,500	10.8	35,780	11.6	-2,280	-6.7	4,280	12.0
Services	116,320	40.6	126,810	43.6	144,260	46.6	10,490	9.0	17,450	12.1
Government	11,950	4.2	13,030	4.5	13,270	4.3	1,080	9.0	240	1.8
Total	286,699	100.0	290,521	100.0	309,341	100.0	3,820	1.3	18,830	6.1
Seven-County Metro Area										
Agriculture[1]	6,900	2.4	7,700	2.7	10,100	3.3	800	11.6	2,400	23.8
Construction	51,300	17.9	52,600	18.1	75,600	24.4	1,300	2.5	23,000	30.4
Manufacturing	252,600	88.1	257,900	88.8	256,800	83.0	5,300	2.1	-1,100	-0.4
TU[2]	83,000	29.0	90,200	31.0	102,400	33.1	7,200	8.7	12,200	11.9
Trade	318,800	111.2	349,800	120.4	383,300	123.9	31,000	9.7	33,500	8.7
FIRE	95,000	33.1	107,200	36.9	126,000	40.7	12,200	12.8	18,800	14.9
Services	421,400	147.0	497,700	171.3	584,300	188.9	76,300	18.1	86,600	14.8
Government	53,200	18.6	57,200	19.7	62,200	20.1	4,000	7.5	5,000	8.0
Total	1,282,582	447.4	1,420,518	489.0	1,601,133	517.6	138,100	10.8	180,400	11.3

[1] Agriculture includes Forestry, Fishing, and Mining.
[2] Transportation and Utilities.

Sources: MN Department of Employment and Economic Development; Maxfield Research Inc.

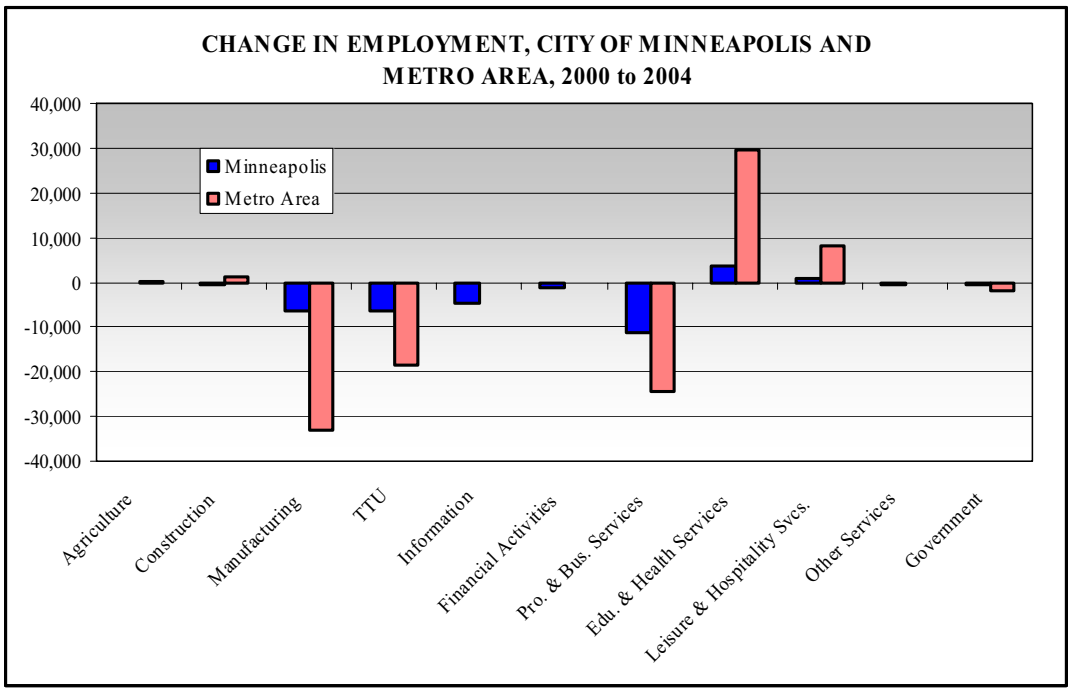

CHANGE IN EMPLOYMENT, CITY OF MINNEAPOLIS AND METRO AREA, 2000 to 2004
40,000
30,000
20,000
10,000
0
-10,000
-20,000
-30,000
-40,000
Minneapolis
Metro Area
Agriculture
Construction
Manufacturing
TTU
Information
Financial Activities
Pro. & Bus. Services
Edu. & Health Services
Leisure & Hospitality Svcs.
Other Services
Government

TABLE 1.6
ESTIMATED COVERED EMPLOYMENT BY INDUSTRY
CITY OF MINNEAPOLIS
Annual Average 2000-2004

	Employment										Change	
	2000		2001		2002		2003		2004		2000-2004	
	No.	Pct.	No.	Pct.	No.	Pct.	No.	Pct.	No.	Pct.	No.	Pct.
City of Minneapolis												
Agriculture[1]	100 [3]	0.0	100 [3]	0.0	90	0.0	90 [3]	0.0	100 [3]	0.0	0	0.0
Construction	8,120 [3]	2.6	7,620 [3]	2.5	7,340	2.5	7,230 [3]	2.5	7,470 [3]	2.6	-650	-8.0
Manufacturing	22,740	7.4	21,310	6.9	18,880	6.4	17,290	6.1	16,380	5.8	-6,360	-28.0
TTU[2]	47,740	15.4	46,470	15.2	43,650	14.8	40,840	14.3	41,160	14.6	-6,580	-13.8
Information	16,360	5.3	15,110	4.9	13,760	4.7	12,540	4.4	11,540	4.1	-4,820	-29.5
Financial Activities	34,420	11.1	35,460 [3]	11.6	34,010 [3]	11.5	33,340 [3]	11.7	33,220 [3]	11.8	-1,200	-3.5
Pro. & Bus. Services	64,650	20.9	62,660	20.4	58,450	19.8	55,830	19.6	53,560	19.0	-11,090	-17.2
Edu. & Health Services	65,100	21.0	67,250	21.9	68,600	23.2	68,090	23.9	68,780	24.3	3,680	5.7
Leisure & Hospitality Svcs.	25,660	8.3	25,440 [3]	8.3	25,580 [3]	8.7	25,710 [3]	9.0	26,650 [3]	9.4	990	3.9
Other Services	11,190	3.6	11,920 [3]	3.9	11,800 [3]	4.0	11,230 [3]	3.9	10,790 [3]	3.8	-400	-3.6
Government	13,270	4.3	13,380	4.4	13,510	4.6	13,260	4.6	12,840	4.5	-430	-3.2
Total	309,352	100.0	306,714	100.0	295,671	100.0	285,457	100.0	282,491	100.0	-26,861	-8.7
Seven-County Metro Area												
Agriculture[1]	3,200	0.2	3,200	0.2	3,300	0.2	3,200	0.2	3,500	0.2	300	9.4
Construction	75,100	4.7	75,000 [3]	4.7	76,800	4.9	74,900	4.8	76,300	4.9	1,200	1.6
Manufacturing	217,100	13.6	206,900	12.9	193,800	12.4	187,500	12.0	183,900	11.8	-33,200	-15.3
TTU[2]	341,200	21.3	340,700 [3]	21.3	330,800 [3]	21.1	324,800	20.8	322,500	20.7	-18,700	-5.5
Information	50,600 [3]	3.2	50,500 [3]	3.2	49,000 [3]	3.1	51,000 [3]	3.3	50,500 [3]	3.2	-100	-0.2
Financial Activities	127,000	7.9	130,100	8.1	123,100 [3]	7.9	128,100 [3]	8.2	126,700 [3]	8.1	-300	-0.2
Pro. & Bus. Services	263,800	16.5	263,400 [3]	16.5	255,800 [3]	16.3	236,000	15.1	239,400	15.3	-24,400	-9.2
Edu. & Health Services	263,800	16.5	273,500	17.1	282,200	18.0	288,800	18.5	293,400	18.8	29,600	11.2
Leisure & Hospitality Svcs.	138,700	8.7	138,500 [3]	8.7	134,500 [3]	8.6	144,600	9.3	146,800	9.4	8,100	5.8
Other Services	55,600	3.5	55,500 [3]	3.5	53,900 [3]	3.4	56,100 [3]	3.6	55,500 [3]	3.6	-100	-0.2
Government	64,400 [3]	4.0	60,800	3.8	62,300	4.0	63,300	4.1	62,600	4.0	-1,800	-2.8
Total	1,600,536	100.0	1,598,131	100.0	1,565,351	100.0	1,558,353	100.0	1,561,241	100.0	-39,295	-2.5

[1] Agriculture includes Forestry, Fishing, and Mining.
[2] TTU includes Trade, Transportation, and Utilities.
[3] Data estimated by applying US Census Bureau's Zip Code Business Pattern data distributions to missing values. See Appendix 1.

Sources: MN Department of Employment and Economic Development; Maxfield Research Inc.

Table 1.7 shows the industries that saw the largest decline in jobs between 2000 and 2004. Table 9 shows the industries that experienced the largest increase in jobs over the period.

- As shown in Table 1.7, job losses occurred across many industries between 2000 and 2004. The largest declines occurred in the Temporary Help Services, Investment Banking and Securities Dealing, and Corporate, Subsidiary, and Regional Managing Offices industries.

TABLE 1.7
6-DIGIT NAICS INDUSTRIES WITH GREATEST EMPLOYMENT LOSSES
CITY OF MINNEAPOLIS
2000 TO 2004

Code	Industry	2000 Employment	2004 Employment	Change
561320	Temporary Help Services	8,670	5,440	-3,230
523110	Investment Banking and Securities Dealing	6,510	4,380	-2,130
551114	Corporate, Subsidiary, and Regional Managing Offices	13,240	11,300	-1,930
511210	Software Publishers	1,490	230	-1,260
524113	Direct Life Insurance Carriers	3,580	2,370	-1,200
561720	Janitorial Services	3,670	2,500	-1,170
323110	Commercial Lithographic Printing	2,360	1,310	-1,050
517110	Wired Telecommunications Carriers	2,670	1,760	-920
221111	Hydroelectric Power Generation	2,790	1,970	-830
518210	Data Processing, Hosting, and Related Services	3,850	3,070	-770

Sources: Minnesota Department of Employment and Economic Development; US Census Bureau; Maxfield Research Inc.

- The largest increase in jobs during the same four years occurred in the Colleges, Universities, and Professional Services Schools, General Medical and Surgical Hospitals, and Services for Elderly and Persons with Disabilities.

TABLE 1.8
6-DIGIT NAICS INDUSTRIES WITH GREATEST EMPLOYMENT GAINS
CITY OF MINNEAPOLIS
2000 TO 2004

Code	Industry	2000 Employment	2004 Employment	Change
611310	Colleges, Universities, and Professional Schools	14,290	15,860	1,570
622110	General Medical and Surgical Hospitals	17,040	18,280	1,240
624120	Services for the Elderly and Persons with Disabilities	1,050	2,280	1,230
621111	Offices of Physicians (except Mental Health Specialists)	4,470	5,690	1,230
522292	Real Estate Credit	1,280	2,440	1,160
722110	Full-Service Restaurants	7,340	8,400	1,060
531120	Lessors of Nonresidential Buildings	1,250	2,230	980
524126	Direct Property and Casualty Insurance Carriers	240	1,130	890
531311	Residential Property Managers	540	1,080	540
493110	General Warehousing and Storage	140	650	510

Sources: Minnesota Department of Employment and Economic Development; US Census Bureau; Maxfield Research Inc.

Table 1.9 documents the employment growth trends among major industry groups between 2000 and 2020. Key points follow below.

- Between 2000 and 2010, employment in Minneapolis is projected to grow by 26,098 jobs (+8.7%). The 2000-2010 growth rate of +8.7% in Minneapolis is comparable to the Metro Area's growth rate of 9.5%.

- The Manufacturing and Information industry groups are predicted to decrease by -4,040 jobs (-17.8%) and -670 jobs (-4.1%), respectively between 2000 and 2010. Similarly, the Trade, Telecommunications, and Utilities (TTU) and Construction industry groups are expected to decrease employment by -250 jobs (-0.5%) and -160 (-2.0%), respectively.

TABLE 1.9
PROJECTED EMPLOYMENT BY INDUSTRY
CITY OF MINNEAPOLIS AND SEVEN-COUNTY METRO AREA
2000, 2010, & 2020

	Employment						Change			
	2000		2010		2020		2000-2010		2010-2020	
	No.	Pct.	No.	Pct.	No.	Pct.	No.	Pct.	No.	Pct.
City of Minneapolis										
Agriculture[1]	100	0.0	70	0.0	60	0.0	-30	-30.0	-10	-14.3
Construction	8,120	2.6	7,960	2.4	9,060	2.3	-160	-2.0	1,100	13.8
Manufacturing	22,740	7.4	18,700	5.6	18,970	4.7	-4,040	-17.8	270	1.4
TTU[2]	47,740	15.4	47,490	14.1	53,680	13.4	-250	-0.5	6,190	13.0
Information	16,360	5.3	15,690	4.7	19,200	4.8	-670	-4.1	3,510	22.4
Financial Activities	34,420	11.1	37,410	11.1	42,200	10.5	2,990	8.7	4,790	12.8
Pro. & Bus. Services	64,650	20.9	69,650	20.7	87,380	21.8	5,000	7.7	17,730	25.5
Edu. & Health Services	65,100	21.0	83,100	24.7	106,410	26.5	18,000	27.6	23,310	28.1
Leisure & Hospitality Svcs.	25,660	8.3	28,570	8.5	33,320	8.3	2,910	11.3	4,750	16.6
Other Services	11,190	3.6	13,330	4.0	15,640	3.9	2,140	19.1	2,310	17.3
Government	13,270	4.3	14,290	4.2	15,320	3.8	1,020	7.7	1,030	7.2
Total	309,352	100.0	336,260	100.0	401,240	100.0	26,908	8.7	64,980	19.3
Seven-County Metro Area										
Agriculture[1]	3,200	0.2	3,000	0.2	2,600	0.1	-200	-6.3	-400	-13.3
Construction	75,100	4.7	87,900	5.0	103,800	5.2	12,800	17.0	15,900	18.1
Manufacturing	217,100	13.6	194,700	11.1	195,900	9.7	-22,400	-10.3	1,200	0.6
TTU[2]	341,200	21.3	363,600	20.8	408,700	20.3	22,400	6.6	45,100	12.4
Information	50,600	3.2	56,900	3.2	68,400	3.4	6,300	12.5	11,500	20.2
Financial Activities	127,000	7.9	133,800	7.6	148,400	7.4	6,800	5.4	14,600	10.9
Pro. & Bus. Services	263,800	16.5	307,000	17.5	383,700	19.1	43,200	16.4	76,700	25.0
Edu. & Health Services	263,800	16.5	338,400	19.3	422,700	21.0	74,600	28.3	84,300	24.9
Leisure & Hospitality Svcs.	138,700	8.7	155,500	8.9	185,800	9.2	16,800	12.1	30,300	19.5
Other Services	55,600	3.5	61,000	3.5	71,100	3.5	5,400	9.7	10,100	16.6
Government	64,400	4.0	65,900	3.8	70,600	3.5	1,500	2.3	4,700	7.1
Total	1,600,536	100.0	1,751,900	100.0	2,013,000	100.0	151,364	9.5	261,100	14.9

[1] Agriculture includes Forestry, Fishing, and Mining.
[2] TTU includes Trade, Transportation, and Utilities.
[3] Data estimated by applying Metro projections for 2002-2012 to Minneapolis employment estimates.

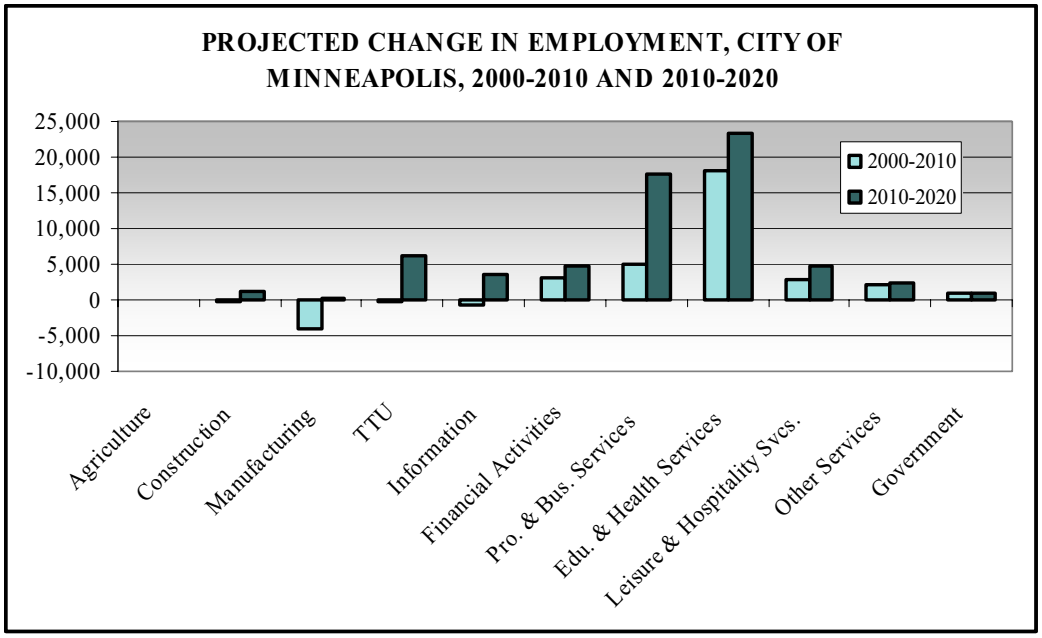
Sources: MN Department of Employment and Economic Development; Maxfield Research Inc.

- The Metro Area is also expected to lose manufacturing jobs in the 2000 to 2010 period, just fewer jobs. While employment in the Manufacturing industry group is expected to drop by -17.8% in Minneapolis, Metro Area manufacturing is predicted to decrease by -10.3%.

- In contrast to Minneapolis, Metro Area employment is expected to grow in the Construction (+17.0%), TTU (+6.6%), and Information (12.5%) industry groups in the current decade.

- Overall employment in Minneapolis is projected to reverse its trend and increase between 2010 and 2020. The number of jobs is predicted to increase by 64,980 (+19.3%). Minneapolis is expected to add jobs at a faster rate than the Metro Area's growth rate (+14.9%) in this decade.

- The previous decade's job losses are largely expected to reverse between 2010 and 2020. The Manufacturing and Information industry groups are predicted to grow by 270 jobs (+1.4%) and 3,510 jobs (+22.4%). The TTU and Construction industry groups are expected to increase employment by 6,190 jobs (+13.0%) and 1,100 (+13.8%).



Establishments in the City of Minneapolis

Table 1.10 and Table 1.11 show the estimated number of establishments in Minneapolis and the Seven-County Metro Area. Establishments are defined by the Department as "the smallest operating business unit for which information can be provided on the cost of resources materials, labor, and capital employed to produce output. An establishment is generally a single physical location where business is conducted or where services or industrial operations are performed." Key points from the tables follow.

- Minneapolis had 13,084 establishments in 2000, which is a gain of 1,369 establishments (+11.7%) from 1990. The Metro Area showed 82,451 establishments in 2000. The number of establishments in the Metro Area increased by 20,184 (+32%) in the last decade.

- In 2000, the majority of establishments in Minneapolis belonged to the Services and Trade industry groups. The Services industry group contained 6,440 establishments (49.2%) and the Trade industry group had 3,190 (24.4%) establishments. The Manufacturing industry group declined by 100 establishments (-11.5%) in the 1990s.

TABLE 1.10
ESTIMATED ESTABLISHMENTS BY INDUSTRY
CITY OF MINNEAPOLIS
Annual Average 1990, 1995, & 2000

	Employment						Change			
	1990		1995		2000		1990-1995		1995-2000	
	No.	Pct.	No.	Pct.	No.	Pct.	No.	Pct.	No.	Pct.
City of Minneapolis										
Agriculture[1]	70	0.6	80	0.6	110	0.8	10	14.3	30	27.3
Construction	560	4.8	450	3.6	540	4.1	-110	-19.6	90	16.7
Manufacturing	870	7.4	840	6.8	750	5.7	-30	-3.4	-90	-12.0
TU[2]	290	2.5	350	2.8	390	3.0	60	20.7	40	10.3
Trade	3,420	29.2	3,290	26.7	3,190	24.4	-130	-3.8	-100	-3.1
FIRE	1,260	10.8	1,420	11.5	1,570	12.0	160	12.7	150	9.6
Services	5,150	44.0	5,800	47.0	6,440	49.2	650	12.6	640	9.9
Government	100	0.9	110	0.9	100	0.8	10	10.0	-10	-10.0
Total	11,715	100.0	12,336	100.0	13,084	100.0	620	5.3	750	5.7
Seven-County Metro Area										
Agriculture[1]	990	1.6	1,140	1.6	1,500	1.8	150	15.2	360	24.0
Construction	5,860	9.4	5,980	8.3	7,390	9.0	120	2.0	1,410	19.1
Manufacturing	4,650	7.5	4,930	6.8	5,170	6.3	280	6.0	240	4.6
TU[2]	2,230	3.6	2,580	3.6	3,090	3.7	350	15.7	510	16.5
Trade	18,980	30.5	20,830	28.9	21,640	26.2	1,850	9.7	810	3.7
FIRE	6,070	9.7	7,670	10.7	9,460	11.5	1,600	26.4	1,790	18.9
Services	22,910	36.8	28,200	39.2	33,540	40.7	5,290	23.1	5,340	15.9
Government	570	0.9	650	0.9	650	0.8	80	14.0	0	0.0
Total	62,267	100.0	71,972	100.0	82,451	100.0	9,720	15.6	10,460	12.7

[1] Agriculture includes Forestry, Fishing, and Mining.
[2] Transportation and Utilities.

Sources: MN Department of Employment and Economic Development; Maxfield Research Inc.

- Manufacturing, Information, Professional and Business Services, and Trade, Transportation, and Utilities industry group contracted over the last four years. The Minneapolis economy lost 137 manufacturing establishments (-18.7%) and 58 information-related establishments (-14.6%). Minneapolis also lost -396 establishments (-12.0%) in the Professional and Business Services industry group as well as 282 establishments (-11.7%) in the Trade, Transportation, and Utilities industry group.

- In contrast, the number of establishments in the Government and Leisure and Hospitality industry groups rose between 2000 and 2004 in Minneapolis.

TABLE 1.11
ESTIMATED ESTABLISHMENTS BY INDUSTRY
CITY OF MINNEAPOLIS
Annual Average 2000-2004

	Establishments										Change	
	2000		2001		2002		2003		2004		2000-2004	
	No.	Pct.	No.	Pct.	No.	Pct.	No.	Pct.	No.	Pct.	No.	Pct.
City of Minneapolis												
Agriculture[1]	5 [3]	0.0	5 [3]	0.0	5	0.0	5 [3]	0.0	5 [3]	0.0	0	0.0
Construction	555 [3]	4.2	528 [3]	4.1	533	4.2	523 [3]	4.3	558 [3]	4.6	3	0.5
Manufacturing	731	5.6	710	5.5	670	5.3	617	5.0	594	4.9	-137	-18.7
TTU[2]	2,420	18.5	2,352	18.2	2,280	18.0	2,173	17.7	2,138	17.7	-282	-11.7
Information	397	3.0	382	3.0	376	3.0	351	2.9	339	2.8	-58	-14.6
Financial Activities	1,541	11.8	1,570 [3]	12.2	1,578 [3]	12.4	1,494 [3]	12.2	1,463 [3]	12.1	-78	-5.1
Pro. & Bus. Services	3,287	25.1	3,207	24.8	3,108	24.5	2,980	24.3	2,891	24.0	-396	-12.0
Edu. & Health Services	1,495	11.4	1,513	11.7	1,514	11.9	1,482	12.1	1,446	12.0	-49	-3.3
Leisure & Hospitality Svcs.	1,206	9.2	1,206 [3]	9.3	1,212 [3]	9.6	1,220 [3]	10.0	1,236 [3]	10.2	30	2.5
Other Services	1,353	10.3	1,332 [3]	10.3	1,308 [3]	10.3	1,303 [3]	10.6	1,285 [3]	10.7	-68	-5.0
Government	95	0.7	100	0.8	102	0.8	109	0.9	107	0.9	12	12.6
Total	13,085	100.0	12,906	100.0	12,686	100.0	12,257	100.0	12,062	100.0	-828	-6.3
Seven-County Metro Area												
Agriculture[1]	270	0.3	260	0.3	260	0.3	260	0.3	260	0.3	-10	-3.7
Construction	7,530	9.1	7,490 [3]	9.1	7,720	9.4	7,930	9.5	8,280	9.9	750	10.0
Manufacturing	5,180	6.3	5,110	6.2	4,950	6.0	4,830	5.8	4,740	5.7	-440	-8.5
TTU[2]	18,590	22.6	18,480 [3]	22.5	18,490 [3]	22.5	18,030	21.7	17,900	21.4	-690	-3.7
Information	1,680 [3]	2.0	1,670 [3]	2.0	1,670 [3]	2.0	1,710 [3]	2.1	1,750 [3]	2.1	70	4.2
Financial Activities	9,570	11.6	9,730	11.8	9,520 [3]	11.6	9,780 [3]	11.8	9,980 [3]	11.9	410	4.3
Pro. & Bus. Services	17,220	20.9	17,130 [3]	20.8	17,130 [3]	20.8	16,930	20.4	16,580	19.8	-640	-3.7
Edu. & Health Services	7,800	9.5	7,940	9.7	8,100	9.9	8,320	10.0	8,380	10.0	580	7.4
Leisure & Hospitality Svcs.	6,030	7.3	5,990 [3]	7.3	5,990 [3]	7.3	6,350	7.6	6,540	7.8	510	8.5
Other Services	7,760	9.4	7,720 [3]	9.4	7,720 [3]	9.4	7,930 [3]	9.5	8,090 [3]	9.7	330	4.3
Government	750 [3]	0.9	650	0.8	670	0.8	1,060	1.3	1,160	1.4	410	54.7
Total	82,382	100.0	82,172	100.0	82,223	100.0	83,127	100.0	83,647	100.0	745	0.9

[1] Agriculture includes Forestry, Fishing, and Mining.
[2] TTU includes Trade, Transportation, and Utilities.
[3] Data estimated by applying US Census Bureau's Zip Code Business Pattern data distributions to missing values. See Appendix 1.

Sources: MN Department of Employment and Economic Development; Maxfield Research Inc.

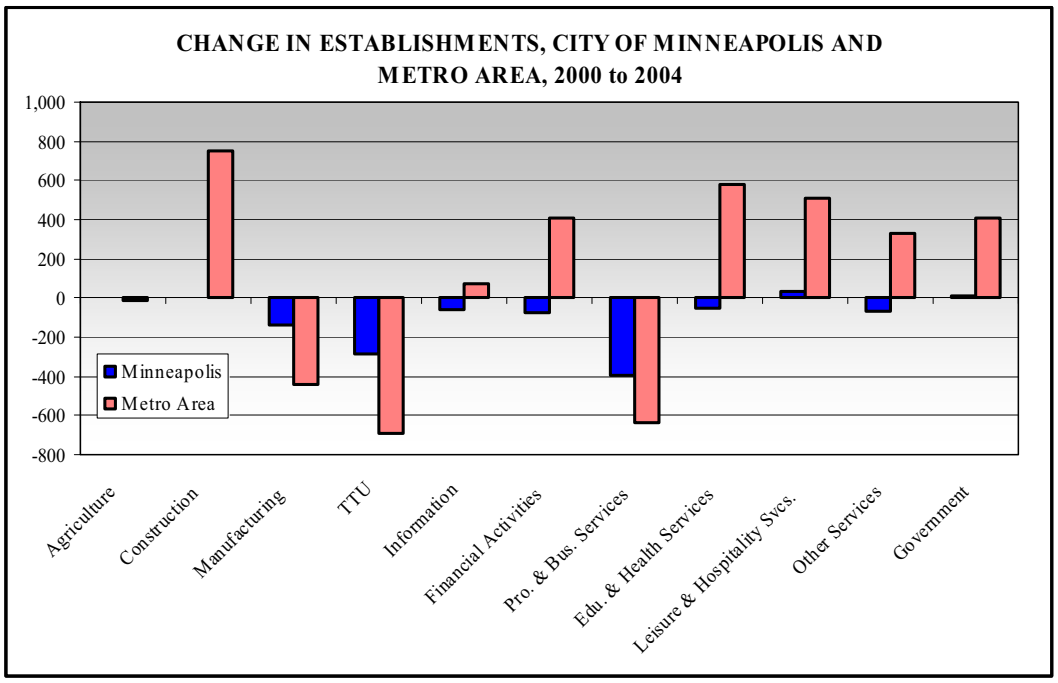


Table 1.12 shows the industries that experienced the largest decreases in establishments between 2000 and 2004. Table 14 shows the industries that experienced the largest increases in establishments over the period. Key points from both tables follow.

- Offices of Lawyers, Other Computer Related Services, and Wholesale Trade Agents and Broker underwent the largest decline in number of establishments. Elementary and Secondary Schools, Offices of Real Estate Agents and Brokers, and Full Service Restaurants experienced the largest increase in number of establishments.

TABLE 1.12
6-DIGIT NAICS INDUSTRIES WITH GREATEST NUMBER OF ESTABLISHMENT LOSSES
CITY OF MINNEAPOLIS
2000 TO 2004

Code	Industry	2000 Est.	2004 Est.	Change
541110	Offices of Lawyers	570	470	-100
541519	Other Computer Related Services	160	90	-70
425120	Wholesale Trade Agents and Brokers	330	260	-70
624190	Other Individual and Family Services	120	90	-30
541430	Graphic Design Services	200	170	-30
524210	Insurance Agencies and Brokerages	160	130	-30
512110	Motion Picture and Video Production	90	60	-30
621210	Offices of Dentists	150	120	-20
813319	Other Social Advocacy Organizations	100	80	-20
522110	Commercial Banking	120	100	-20

Sources: Minnesota Department of Employment and Economic Development; US Census Bureau; Maxfield Research Inc.

TABLE 1.13
6-DIGIT NAICS INDUSTRIES WITH GREATEST NUMBER OF ESTABLISHMENT GAINS
CITY OF MINNEAPOLIS
2000 TO 2004

Code	Industry	2000 Est.	2004 Est.	Change
611110	Elementary and Secondary Schools	270	310	40
531210	Offices of Real Estate Agents and Brokers	150	180	30
722110	Full-Service Restaurants	290	320	30
722211	Limited-Service Restaurants	300	330	30
236118	Residential Remodelers	80	100	20
445110	Supermarkets and Other Grocery Stores	100	120	20
722213	Snack and Nonalcoholic Beverage Bars	110	130	20
713940	Fitness and Recreational Sports Centers	10	30	20
813110	Religious Organizations	20	40	20
531311	Residential Property Managers	90	110	20

Sources: Minnesota Department of Employment and Economic Development; US Census Bureau; Maxfield Research Inc.

Business Start-Ups and Dissolutions

Like establishment trends, the number of business start-ups and dissolutions helps to gauge the health of various industries in the Minneapolis economy. Table 1.14 presents the number of start-ups and dissolutions within the Metro Area between 1998 and 2002. Table 1.15 shows employment changes based on these start-ups and dissolutions.

Key points from the tables are below.

- The industrial industry groups – Mining, Construction, Manufacturing, TCU, and Wholesale Trade – show steady decline number of start-ups and increase in the number of dissolutions between 1998 and 2002.

- For example, the Manufacturing industry group declined from 217 start-ups in 1998 to 176 start-ups in 2002. The dissolution data paints a similar parallel picture. The number of manufacturing firms dissolving increased from 1,302 to 1,951.

- Start-ups in the Manufacturing industry group created an average of 11 new jobs in 2002. Start-ups in Transportation, Communication, and Utilities industry groups accounted for an average of 7 new jobs and start-ups in the Wholesale Trade industry group created an average of 6 new jobs.

TABLE 1.14
BUSINESS START-UPS AND DISSOLUTIONS
TWIN CITIES METRO AREA
1998-2002

Start-Ups

	1998 Num.	1999 Num.	2000 Num.	2001 Num.	2002 Num.
Agriculture	D	D	D	D	121
Mining	D	D	D	D	0
Construction	586	652	659	806	566
Manufacturing	217	224	228	221	176
TCU	272	232	249	207	182
Wholesale Trade	406	364	428	311	307
Retail Trade	941	924	1,102	1,121	962
FIRE	721	693	760	657	717
Services	3,537	3,322	2,725	2,656	3,466
Public Adm.	D	D	D	D	33
Total	6,806	6,546	6,280	6,101	6,530

Dissolutions

	1998 Num.	1999 Num.	2000 Num.	2001 Num.	2002 Num.
Agriculture	D	D	D	D	37
Mining	D	D	D	D	0
Construction	396	368	368	508	540
Manufacturing	208	244	156	325	343
TCU	222	176	165	239	262
Wholesale Trade	468	461	460	554	562
Retail Trade	820	696	709	992	916
FIRE	480	445	492	673	555
Services	2,070	2,066	2,041	2,788	3,121
Public Adm.	D	D	D	D	5
Total	4,723	4,513	4,470	6,190	6,382

D = Data suppressed to avoid disclosure of individual company.

Sources: Minnesota Department of Employment and Economic Development; Maxfield Research Inc.

TABLE 1.15
EMPLOYMENT CHANGES FROM BUSINESS START-UPS AND DISSOLUTIONS
TWIN CITIES METRO AREA
1998-2002

Start-Ups

	1998 Num.	1999 Num.	2000 Num.	2001 Num.	2002 Num.
Agriculture	D	D	D	D	201
Mining	D	D	D	D	0
Construction	1,346	1,484	1,517	1,954	1,610
Manufacturing	1,302	1,443	2,098	2,183	1,951
TCU	774	741	1,605	799	1,208
Wholesale Trade	2,119	2,449	2,257	1,545	1,883
Retail Trade	7,725	10,144	14,245	10,997	10,361
FIRE	1,641	2,431	2,882	1,438	2,172
Services	10,031	10,217	11,059	9,132	11,224
Public Adm.	D	D	D	D	249
Total	25,164	29,076	35,922	28,341	30,859

Dissolutions

	1998 Num.	1999 Num.	2000 Num.	2001 Num.	2002 Num.
Agriculture	D	D	D	D	102
Mining	D	D	D	D	0
Construction	599	786	849	1,153	1,235
Manufacturing	1,355	1,512	1,140	1,907	3,102
TCU	827	460	438	622	990
Wholesale Trade	2,034	2,310	1,532	1,978	2,098
Retail Trade	4,448	4,141	5,142	4,861	4,607
FIRE	989	1,145	900	829	2,001
Services	4,378	6,160	5,507	6,746	7,330
Public Adm.	D	D	D	D	23
Total	14,723	16,738	15,677	18,271	21,512

D = Data suppressed to avoid disclosure of individual company.

Sources: Minnesota Department of Employment and Economic Development;
Maxfield Research Inc.

Industrial Competitiveness in Minneapolis – Cluster Analysis

Defining Clusters

Industry clusters emerged in the early 1990s as a way of explaining the competitive advantages of a specific location. Although cluster analysis has longstanding roots, Michael Porter at Harvard University formulated and popularized the idea of industry clusters.[1] In short, clusters are linked industries and institutions that foster economic competitiveness and job growth.

Clusters frequently form on their own. Businesses use location-specific assets to attract new investment and create new value.[2] These assets include specialized labor pools, infrastructure, supporting industries and suppliers, and customer bases. For example, clusters can form because of a university or major employer that attracts knowledgeable workers, who in turn, spin off to start their own companies in the major employer's supply chain. Inter-firm dependence, cooperation, and proximity in clusters also contribute to synergies, higher productivity, and wealth.[3]

Industry Cluster Initiatives

States, counties, and cities have utilized cluster studies and launched business assistance programs tailored to industry clusters. A cluster approach to business assistance is followed in at least 18 states and 18 cities or regions -cities such as Austin, Cincinnati, Los Angeles, New York, San Diego, and Tampa.[4]

Businesses and governments frequently target resources to meet the needs of the established or emerging clusters. Instead of older industrial recruitment strategies –the "shot gun" approach where a tax abatement package is used to incentivize a single business to locate in a state or city and in turn create jobs- these programs attempt to meet multiple needs of businesses that comprise a cluster.[5]

However, the impact of cluster-based targeting programs is undetermined. Proponents suggest there is growing consensus that cluster analysis can provide useful information about how a local economy works and what can be done to improve it. Detractors argue the method is based on questionable data and economic reasoning and is motivated by politics.[6] Regardless of the disputed impact, Minneapolis requested this study evaluate the presence of industry clusters.

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[1] Porter, Michael. "Location, Competition, and Economic Development: Local Clusters in a Global Economy." Economic Development Quarterly. Vol. 14, No. 1. 2000

[2] Feldman, Maryann & Francis, Johanna. "Homegrown Soultions: Fostering Cluster Formation." Economic Development Quarterly. Vol. 18, No. 2. 2004

[3] Peters, David. "Revisiting Industry Cluster Theory and Method for Use in Public Policy: An Example Identified Supplier-Based Clusters in Missouri." Mid-Continent Regional Science Association Mtg. June, 2004.

[4] Waits, Mary Jo. "The Added Value of the Industry Cluster Approach to Economic Analysis, Strategy Development, and Service Delivery." Economic Development Quarterly. Val. 14, No. 1. 2000

[5] Ibid.

[6] Buss, Terry. "The Case Against Targeted Industry Strategies." Economic Development Quarterly, Vol. 13, No. 4. 1999

Industry Clusters in Minneapolis

In July 1995, the State and Local Policy Program (SLPP) at the University of Minnesota's Humphrey Institute for Public Affairs released a study of industry clusters in Minneapolis, Minnesota.

The study used location quotients to identify industry clusters in the region. Location quotients are ratios of an industry's employment in an area relative to that industry's employment nationally. For example, if 50% of a region's employment was in a particular industry and nationally that industry accounted for 25% of the employment, the location quotient would be 50% divided by 25%, or two. A location quotient above one is a generally an agreed-on indicator of significant economic competitiveness.

Based on these location quotients, the SLPP study focused on four industry clusters for the region in its analysis: printing and publishing, computers and software, medical devices, machinery and metalworking. Maxfield Research set out to verify the presence of these four industry clusters and any additional clusters.

To do so, our analysis utilized a two-step process that combined location quotient and input-output analysis. We again used the location quotient calculation to measure the competitiveness of industries. Second, we employed input-output analysis to see linkages between industries. Input-output analysis provides a dollar and multiplier value for inter-industry purchases. In turn, we can identify which industry is buying goods or services from which industry.

Tables 1.16 through 1.19 show estimated employment and location quotients data for the same clusters identified by the SLPP study. Employment estimates and location quotients are calculated from 1998 and 2002 U.S. County Business Pattern data. The tables are organized by industry group using the North American Industry Classification System (NAICS), from three- to six-digits. In this system, an additional digit means an additional level of detail. The shaded lines indicate the digit-level with the industry's total employment.

Table 1.20 shows additional industries that might be associated with the clusters through forward and backward linkages. The following are key points from these tables follow.

- The industry clusters identified in the 1995 study continue to exist. Almost all the industries in the four clusters show location quotients above one.

- In the Metal and Machinery Cluster, industries with high location quotients and employment include:

    ⇒ Navigational, Measuring, Electromedical, and Control Instruments Manufacturing;
    ⇒ Hardware, Plumbing, and Heating Equipment and Supplies Wholesalers;
    ⇒ Coating, Engraving, Heat Treating, and Allied Activities;
    ⇒ Turned Product and Screw, Nut, and Bolt Manufacturing.

- In the Printing and Publishing Cluster, industries with high location quotients and employment are:

  ⇒ Newspaper, Periodical, Book, and Database Publishers;
  ⇒ Graphic Design Services;
  ⇒ Commercial Lithographic Printing;
  ⇒ Support Activities for Printing.

- In the Computers and Software Cluster, industries with high location quotients and employment include:

  ⇒ Computer Systems Design and Related Services;
  ⇒ Information Services and Data Processing Services;
  ⇒ Computer and Computer Equipment Manufacturing.

- In the Medical Devices Cluster, industries with high location quotients and employment are:

  ⇒ Navigational, Measuring, Electromedical, and Control Instruments Manufacturing;
  ⇒ Medical Equipment and Supplies Manufacturing;
  ⇒ Medical, Dental, and Hospital Equipment and Supplies Wholesalers.

- Many of the industries experienced job losses between 1998 and 2002. The Machinery and Metal Working Cluster declined by -1,526 jobs and the Printing and Publishing Cluster decreased by -1,370 jobs. The Computers and Software Cluster declined by -165 jobs, while the Medical Devices Cluster diminished by -751 jobs.

- The job losses might be attributed to several factors. The 2001 Recession and continued market contraction likely reduced employment among many of the industries. Trends such as increased automation and outsourcing also might explain some industry job losses.

- The Machinery and Metalworking, Printing and Publishing, and Medical Devices Clusters are predominately comprised of industrial land users. The Computers and Software Cluster contains many industries that are not permitted users of industrial land under the City of Minneapolis zoning code.

Potential Additional Clusters in Minneapolis

Maxfield Research identified a number of potential clusters in addition to those singled out in the 1995 study: Advertising and Telecommunications; Arts; Finance, Insurance, and Real Estate; Professional and Technical Services; Health Care; Utilities. Of these additional clusters, Advertising and Telecommunications, Arts, Professional and Technical Services, Health Care, and Utilities have the potential to use industrial-zoned land. Data on the additional potential clusters can be made available upon request.

TABLE 1.16
MACHINERY AND METAL WORKING CLUSTER
CITY OF MINNEAPOLIS
1998-2002

Industry	NAICS	Ind. Zone	1998 Emp.	2002 Emp.	Emp. Change	1998 LQ	2002 LQ	LQ Change
Laminated Aluminum Foil Manufacturing for Flexible Packaging Uses	322225	I	175	175	0	13.06	12.41	-0.66
Iron and Steel Pipe and Tube Manufacturing from Purchased Steel	33121	I	375	375	0	4.61	5.55	0.94
Foundries	3315	I	429	515	87	0.68	1.10	0.42
Ferrous Metal Foundries	33151	I	254	266	12	0.71	1.07	0.36
Iron Foundries	331511	I	252	264	12	1.12	1.65	0.53
Nonferrous Metal Foundries	33152	I	175	249	75	0.64	1.13	0.49
Aluminum Die-Casting Foundries	331521	I	175	175	0	2.06	2.57	0.51
Nonferrous (except Aluminum) Die-Casting Foundries	331522	I	0	75	75	0.00	1.88	1.88
Forging and Stamping	3321	I	682	638	-44	1.42	1.71	0.29
Forging and Stamping	33211	I	682	638	-44	1.42	1.71	0.29
Custom Roll Forming	332114	I	175	175	0	3.90	4.53	0.63
Metal Stamping	332116	I	500	463	-37	1.76	2.16	0.40
Cutlery and Handtool Manufacturing	3322	I	264	175	-89	1.16	1.02	-0.14
Cutlery and Handtool Manufacturing	33221	I	264	175	-89	1.16	1.02	-0.14
Kitchen Utensil, Pot, and Pan Manufacturing	332214	I	175	175	0	7.87	13.06	5.18
Turned Product and Screw, Nut, and Bolt Manufacturing	33272	I	867	640	-227	2.14	2.12	-0.02
Precision Turned Product Manufacturing	332721	I	658	431	-227	2.70	2.44	-0.26
Bolt, Nut, Screw, Rivet, and Washer Manufacturing	332722	I	209	209	0	1.30	1.68	0.38
Coating, Engraving, Heat Treating, and Allied Activities	3328	I	1,009	1,101	92	2.13	2.84	0.71
Coating, Engraving, Heat Treating, and Allied Activities	33281	I	1,009	1,101	92	2.13	2.84	0.71
Metal Heat Treating	332811	I	75	75	0	1.07	1.34	0.27
Electroplating, Plating, Polishing, Anodizing, and Coloring	332813	I	854	992	138	3.81	5.47	1.66
Metal Valve Manufacturing	33291	I	375	375	0	1.06	1.29	0.23
Fluid Power Valve and Hose Fitting Manufacturing	332912	I	375	375	0	3.29	4.10	0.81
Sawmill and Woodworking Machinery Manufacturing	33321	I	209	116	-93	8.19	6.45	-1.74

TABLE 1.16 (CONT.)
MACHINERY AND METAL WORKING CLUSTER
CITY OF MINNEAPOLIS
1998-2002

Industry	NAICS	Ind. Zone	1998 Emp.	2002 Emp.	Emp. Change	1998 LQ	2002 LQ	LQ Change
Heating Equipment (except Warm Air Furnaces) Manufacturing	333414	I	77	77	0	1.12	1.35	0.22
Speed Changer, Industrial High-Speed Drive, and Gear Manufacturing	333612	I	124	69	-55	2.71	2.02	-0.68
Other General Purpose Machinery Manufacturing	3339	I	1,768	1,320	-448	1.76	1.70	-0.06
Pump and Compressor Manufacturing	33391	I	834	834	0	4.27	5.49	1.22
Pump and Pumping Equipment Manufacturing	333911	I	824	824	0	7.57	9.51	1.93
Elevator and Moving Stairway Manufacturing	333921	I	75	75	0	2.71	3.03	0.32
Packaging Machinery Manufacturing	333993	I	364	349	-15	4.07	5.35	1.28
Navigational, Measuring, Electromedical, and Control Instruments Manufacturing[1]	3345	I	1,905	1,493	-412	1.77	1.65	-0.12
Navigational, Measuring, Electromedical, and Control Instruments Manufacturing[1]	33451	I	1,905	1,493	-412	1.77	1.65	-0.12
Search, Detection, Navigation, Guidance, Aeronautical...Manufacturing[1]	334511	I	1,077	1,089	12	3.81	4.13	0.32
Other Measuring and Controlling Device Manufacturing	334519	I	359	264	-95	3.56	3.08	-0.48
Motor and Generator Manufacturing	335312	I	189	175	-15	0.95	1.20	0.26
All Other Electrical Equipment and Component Manufacturing	33599	I	249	444	195	1.49	3.52	2.02
All Other Miscellaneous Electrical Equipment and Component Manufacturing[1]	335999	I	249	444	195	1.84	4.28	2.44
Office Furniture (except Wood) Manufacturing	337214	I	75	75	0	0.76	1.05	0.29
Blind and Shade Manufacturing	33792	I	226	226	0	3.99	4.38	0.39
Miscellaneous Manufacturing	339	I	2,858	2,192	-667	1.38	1.24	-0.14
Electrical Apparatus and Equipment, Wiring Supplies...Wholesalers	42161	I	458	684	226	0.98	1.44	0.46
Hardware, and Plumbing and Heating Equipment and Supplies Wholesalers	4217	I	1,021	945	-77	1.52	1.42	-0.11
Plumbing and Heating Equipment and Supplies (Hydronics) Wholesalers	42172	I	159	284	125	1.11	1.80	0.70
Warm Air Heating and Air-Conditioning Equipment and Supplies Wholesalers	42173	I	352	332	-20	2.29	2.12	-0.17
Total Employment			**13,330**	**11,804**	**-1,526**			

[1] = Included in Medical Device Cluster
I = Traditional Industrial Space User

Source: County Business Pattern, U.S. Census, Maxfield Research Inc.

TABLE 1.17
PRINTING AND PUBLISHING CLUSTER
CITY OF MINNEAPOLIS
1998-2002

Industry	NAICS	Ind. User	1998 Emp.	2002 Emp.	Emp. Change	1998 LQ	2002 LQ	LQ Change
Printing and Related Support Activities	323	I	5,183	4,417	-766	2.10	2.27	0.17
Printing and Related Support Activities	3231	I	5,183	4,417	-766	2.11	2.27	0.16
Printing	32311	I	4,097	3,354	-743	1.85	1.89	0.04
Commercial Lithographic Printing	323110	I	2,939	2,193	-746	2.44	2.29	-0.15
Commercial Flexographic Printing	323112	I	158	347	189	1.80	4.37	2.57
Quick Printing	323114	I	275	264	-11	1.65	1.78	0.13
Manifold Business Forms Printing	323116	I	209	149	-60	1.35	1.46	0.11
Books Printing	323117	I	75	149	75	0.54	1.29	0.75
Blankbook, Looseleaf Binders, and Devices Manufacturing	323118	I	49	49	0	0.93	1.38	0.46
Support Activities for Printing	32312	I	1,086	1,063	-23	4.40	6.18	1.78
Tradebinding and Related Work	323121	I	263	241	-23	2.72	3.23	0.51
Prepress Services	323122	I	823	823	0	5.48	8.43	2.94
Inorganic Dye and Pigment Manufacturing	325131	I	15	35	20	0.56	1.64	1.08
Printing Ink Manufacturing	32591	I	116	112	-5	2.85	3.30	0.45
Printing and Writing Paper Wholesalers	42211	I	499	445	-54	5.09	5.46	0.37
Book, Periodical, and Newspaper Wholesalers	42292	I	279	351	72	1.10	1.64	0.55
Publishing Industries	511	I	3,185	3,068	-118	1.19	1.22	0.02
Newspaper, Periodical, Book, and Database Publishers	5111	I	2,674	2,574	-100	1.42	1.47	0.05
Newspaper Publishers	51111	I	1,444	1,451	7	1.45	1.56	0.12
Periodical Publishers	51112	I	551	719	169	1.46	2.06	0.59
Other Publishers	51119	I	165	165	0	0.92	1.15	0.24
All Other Publishers	511199	I	165	158	-7	1.17	1.40	0.23

TABLE 1.17 (CONT.)
PRINTING AND PUBLISHING CLUSTER
CITY OF MINNEAPOLIS
1998-2002

Industry	NAICS	Ind. User	1998 Emp.	2002 Emp.	Emp. Change	1998 LQ	2002 LQ	LQ Change
Graphic Design Services	54143	NI	1,153	910	-243	5.06	4.11	-0.96
Photographic Services	54192	NIP	387	363	-24	1.48	1.51	0.03
Commercial Photography	541922	NIP	230	198	-32	3.85	3.96	0.11
Other Business Service Centers (including Copy Shops)	561439	NIP	606	353	-253	2.28	1.77	-0.51
Total Employment			**11,420**	**10,050**	**-1,370**			

I = Traditional Industrial Space User
NI = Non-Industrial Space User
NIP = Non-Industrial Space User, but Permitted on Industrial-Zoned Land

Source: County Business Pattern, U.S. Census, Maxfield Research Inc.

TABLE 1.18
COMPUTERS AND SOFTWARE CLUSTER
CITY OF MINNEAPOLIS
1998-2002

Industry	NAICS	Ind. Zone	1998 Emp.	2002 Emp.	Emp. Change	1998 LQ	2002 LQ	LQ Change
Computer Terminal Manufacturing	334113	I	0	15	15	0.00	1.16	1.16
Bare Printed Circuit Board Manufacturing	334412	I	394	177	-217	1.81	1.21	-0.61
Prerecorded Compact Disc (except Software), Tape, and Record Reproducing	334612	I	124	86	-38	1.78	1.36	-0.42
All Other Miscellaneous Electrical Equipment and Component Manufacturing[1]	335999	I	249	444	195	1.84	4.28	2.44
Computer and Computer Peripheral Equipment and Software Wholesalers	42143	I	1,679	1,900	221	1.84	2.41	0.57
Information Services and Data Processing Services	514	I	1,898	1,902	4	1.79	1.38	-0.41
All Other Information Services	514199	NI	5	102	97	0.27	2.50	2.24
Data Processing Services	5142	NI	1,486	1,415	-72	2.03	1.69	-0.34
Data Processing Services	51421	NI	1,486	1,415	-72	2.03	1.69	-0.34
Office Machinery and Equipment Rental and Leasing	53242	NI	61	91	30	1.37	2.67	1.30
Computer Systems Design and Related Services	5415	NI	5,755	5,739	-16	2.16	1.85	-0.32
Computer Systems Design and Related Services	54151	NI	5,755	5,739	-16	2.16	1.85	-0.32
Custom Computer Programming Services	541511	NI	2,485	3,059	574	2.04	2.26	0.22
Computer Systems Design Services	541512	NI	2,037	2,330	293	1.90	1.77	-0.14
Other Computer Related Services	541519	NI	449	328	-121	2.14	1.24	-0.91
Computer and Office Machine Repair and Maintenance	811212	NIP	160	214	54	0.69	1.19	0.49
Total Employment			**12,398**	**12,233**	**-165**			

[1] = Included in Machinery and Metal Working Cluster
I = Traditional Industrial Space User
NI = Non-Industrial Space User
NIP = Non-Industrial Space User, but Permitted on Industrial-Zoned Land

Source: County Business Pattern, U.S. Census, Maxfield Research Inc.

TABLE 1.19
MEDICAL DEVICES CLUSTER
CITY OF MINNEAPOLIS
1998-2002

Industry	NAICS	Ind. Zone	1998 Emp.	2002 Emp.	Emp. Change	1998 LQ	2002 LQ	LQ Change
Navigational, Measuring, Electromedical, and Control Instruments Manufacturing[1]	3345	I	1,905	1,493	-412	1.77	1.65	-0.12
Navigational, Measuring, Electromedical, and Control Instruments Manufacturing[1]	33451	I	1,905	1,493	-412	1.77	1.65	-0.12
Search, Detection, Navigation, Guidance, Aeronautical...Manufacturing[1]	334511	I	1,077	1,089	12	3.81	4.13	0.32
Miscellaneous Manufacturing[1]	339	I	2,858	2,192	-667	1.38	1.24	-0.14
Medical Equipment and Supplies Manufacturing	3391	I	1,418	1,379	-40	1.75	1.80	0.06
Medical Equipment and Supplies Manufacturing	33911	I	1,418	1,379	-40	1.75	1.80	0.06
Surgical and Medical Instrument Manufacturing	339112	I	1,187	1,148	-40	4.43	4.51	0.08
Medical, Dental, and Hospital Equipment and Supplies Wholesalers[2]	42145	I	210	517	307	0.56	1.33	0.77
Ophthalmic Goods Wholesalers[2]	42146	I	185	206	21	2.18	2.61	0.43
Total Employment			**5,158**	**4,407**	**-751**			

[1] = Included in Machinery and Metal Working Cluster
I = Traditional Industrial Space User
NI = Non-Industrial Space User
NIP = Non-Industrial Space User, but Permitted on Industrial-Zoned Land

Source: County Business Pattern, U.S. Census, Maxfield Research Inc.

TABLE 1.20
POSSIBLE ADDITIONAL CLUSTER INDUSTRIES
FORWARD AND BACKWARD INDUSTRY LINKAGES[1]
CITY OF MINNEAPOLIS
2002

Industry	NAICS	2002 Emp.	Value of Goods and Services Purchased/ Sold By Cluster
Machinery and Metalworking Cluster			
Semiconductor and Related Device Manufacturing	334413	15	$23,962,350
Bare Printed Circuit Board Manufacturing	334412	177	$22,408,015
Machine Shops	33271	365	$8,560,328
Plastics Plumbing Fixture Manufacturing	326191	575	$7,932,263
Fabricated Structural Metal Manufacturing	332312	224	$6,864,669
Laboratory Apparatus and Furniture Manufacturing	339111	37	$2,578,576
Surgical Appliance and Supplies Manufacturing	339113	56	$2,125,828
Industrial Truck, Tractor, Trailer, and Stacker Machinery Manufacturing	333924	7	$1,215,877
Printing and Publishing Cluster			
Commercial Gravure Printing	323111	2,687	$28,987,753
Coated and Laminated Packaging Paper and Plastics Film Manufacturing	322221	15	$6,569,628
Synthetic Dye and Pigment Manufacturing	32513	35	$3,383,119
Paint and Coating Manufacturing	32551	72	$2,601,245
Book Publishers	51113	184	$2,247,657
Database and Directory Publishers	51114	56	$4,289,844
Paperboard Container Manufacturing	32221	433	$1,518,445
Envelope Manufacturing	322232	375	$1,443,656
Computers and Software Cluster			
Semiconductor and Related Device Manufacturing	334413	15	$5,506,850
Commercial and Industrial Machinery and Equipment (except Automotive and Electronic	8113	279	$2,980,449
Plastics Material and Resin Manufacturing	325211	75	$1,995,659
Electronic and Precision Equipment Repair and Maintenance	8112	270	$1,289,717
Electronic Computer Manufacturing	334111	5	$8,377,374
Cable Networks and Program Distribution	5132	220	$6,403,584
Information Services	5141	487	$1,655,522
Software Publishers	5112	494	$1,538,256
Medical Devices Cluster			
Surgical Appliance and Supplies Manufacturing	339113	56	$17,840,396
Laboratory Apparatus and Furniture Manufacturing	339111	37	$3,933,813

[1] = Over $1,000,000 in sales or goods or services.

Source: Implan® Software and Data, State of Minnesota ES-202 Data, County Business Pattern Data

Industrial Employment in the City of Minneapolis

In order to estimate employment for industrial uses in Minneapolis, Maxfield Research Inc. used existing employment data by NAICS industry from the Department of Employment and Economic Development. With the assistance of Minneapolis City Staff, Maxfield Research Inc. categorized all six-digit NAICS codes into appropriate zoning categories, light industrial (Zone I-1), medium industrial (Zone I-2), or heavy industrial (Zone I-3).

Citywide Industrial Employment

Tables 1.21 and 1.22 present data on industrial employment in Minneapolis between 2000 and 2004 as well as projections for 2000 to 2020. These figures represent a composite of light (I1), medium (I2), and heavy (I3) zoning districts.

Key findings are shown below.

- The Manufacturing, Information, and Wholesale Trade industry groups experienced the largest job losses in the 2000-2004 period. Manufacturing firms cut 6,290 jobs, information-related firms cut 1,780 jobs, and wholesale trade firms cut 1,550 jobs.

- The Real Estate, Manufacturing, and Utilities industry groups contracted the most, as a percentage change of industry employment. The number of jobs in Real Estate and Manufacturing industry groups decreased by -66.7% and -27.9% respectively. The number of jobs in the Utilities industry group dropped by -23.9%.

- Industrial users in Minneapolis are forecast to undergo job losses between 2000 and 2010 and job gains between 2010 and 2020. Industrial employment in Minneapolis is expected to decrease by -4,620 jobs (-7.4%) in the current decade and increase by 4,510 jobs (+7.8%) in the subsequent decade. Industrial employment is predicted to remain stable between 2000 and 2020, without accounting for limiting factors such as a reduction in industrial space due to conversions.

- Among industrial users, the Manufacturing, Information, and Utilities industry groups are predicted to experience job losses in the current decade. Industrial users in Manufacturing are forecast to lose -3,980 jobs (-17.6%), -1,180 jobs (-13.7%) in Information, and -850 jobs (-18.8%) in Utilities.

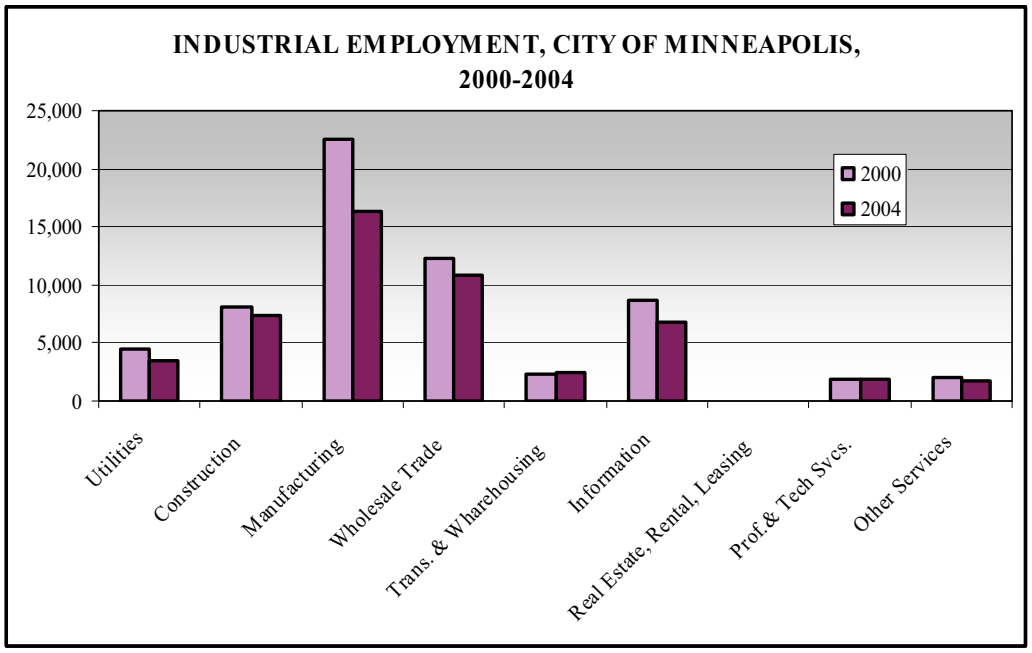
- Projections show the same industries growing in the 2010-2020 decade. Manufacturing is forecast to add 230 jobs (+1.2%); Information is forecasted to add +60 jobs (+.8%). The job decline in the Utilities industry group is expected to slow to -60 jobs (-1.6%).

TABLE 1.21
ESTIMATED INDUSTRIAL EMPLOYMENT AND ESTABLISHMENTS
INDUSTRIAL ZONING
CITY OF MINNEAPOLIS
Annual Average 2000-2004

	Employment										Change	
	2000		2001		2002		2003		2004		2000-2004	
	No.	Pct.	No.	Pct.	No.	Pct.	No.	Pct.	No.	Pct.	No.	Pct.
Utilities	4,510	6.3	4,140	6.0	3,710	5.8	3,440	5.8	3,430	5.9	-1,080	-23.9
Construction	8,070	11.3	7,540	11.0	7,210	11.4	7,200	12.1	7,430	12.8	-640	-7.9
Manufacturing	22,550	31.5	21,140	30.9	18,750	29.6	17,160	28.9	16,260	27.9	-6,290	-27.9
Wholesale Trade	12,340	17.2	12,010	17.5	11,400	18.0	10,870	18.3	10,790	18.5	-1,550	-12.6
Trans. & Wharehousing	11,670	16.3	11,600	16.9	10,970	17.3	9,680	16.3	9,850	16.9	-1,820	-15.6
Information	8,600	12.0	8,150	11.9	7,480	11.8	7,130	12.0	6,820	11.7	-1,780	-20.7
Real Estate, Rental, Leasing	60	0.1	70	0.1	60	0.1	60	0.1	20	0.0	-40	-66.7
Prof.& Tech Svcs.	1,860	2.6	1,760	2.6	1,730	2.7	1,800	3.0	1,830	3.1	-30	-1.6
Other Services	2,010	2.8	2,100	3.1	2,140	3.4	2,040	3.4	1,790	3.1	-220	-10.9
Total	71,670	100.0	68,510	100.0	63,450	100.0	59,380	100.0	58,220	100.0	-13,450	-18.8

	Establishments										Change	
	2000		2001		2002		2003		2004		2000-2004	
	No.	Pct.	No.	Pct.	No.	Pct.	No.	Pct.	No.	Pct.	No.	Pct.
Utilities	23	0.8	25	0.9	26	1.0	23	0.9	23	0.9	0	0.0
Construction	548	19.5	527	19.3	526	19.9	517	20.7	551	22.1	3	0.5
Manufacturing	725	25.7	704	25.8	665	25.1	612	24.5	593	23.8	-132	-18.2
Wholesale Trade	899	31.9	861	31.5	847	32.0	804	32.2	783	31.5	-116	-12.9
Trans. & Wharehousing	188	6.7	187	6.9	170	6.4	149	6.0	151	6.1	-37	-19.9
Information	276	9.8	270	9.9	256	9.7	242	9.7	241	9.7	-35	-12.7
Real Estate, Rental, Leasing	4	0.1	5	0.2	5	0.2	4	0.2	3	0.1	-1	-25.0
Prof.& Tech Svcs.	41	1.5	41	1.5	42	1.6	39	1.6	39	1.6	-2	-4.9
Other Services	113	4.0	111	4.1	109	4.1	107	4.3	104	4.2	-9	-8.0
Total	2,817	100.0	2,731	100.0	2,646	100.0	2,497	100.0	2,488	100.0	-329	-11.7

Sources: MN Department of Employment and Economic Development; City of Minneapolis; Maxfield Research Inc.



- Transportation and Warehousing and Wholesale Trade industry groups display varying employment trends. Industrial users in Transportation and Warehousing are estimated to add 1,050 jobs (+44.9%) in the 2000-2010 period, as well as 1,130 jobs (+33.3%) in the 2010-2020 period. Wholesale Trade is projected to decrease by only -60 jobs (-0.5%) and increase by 1,240 jobs (+10.1%) over the same decade.

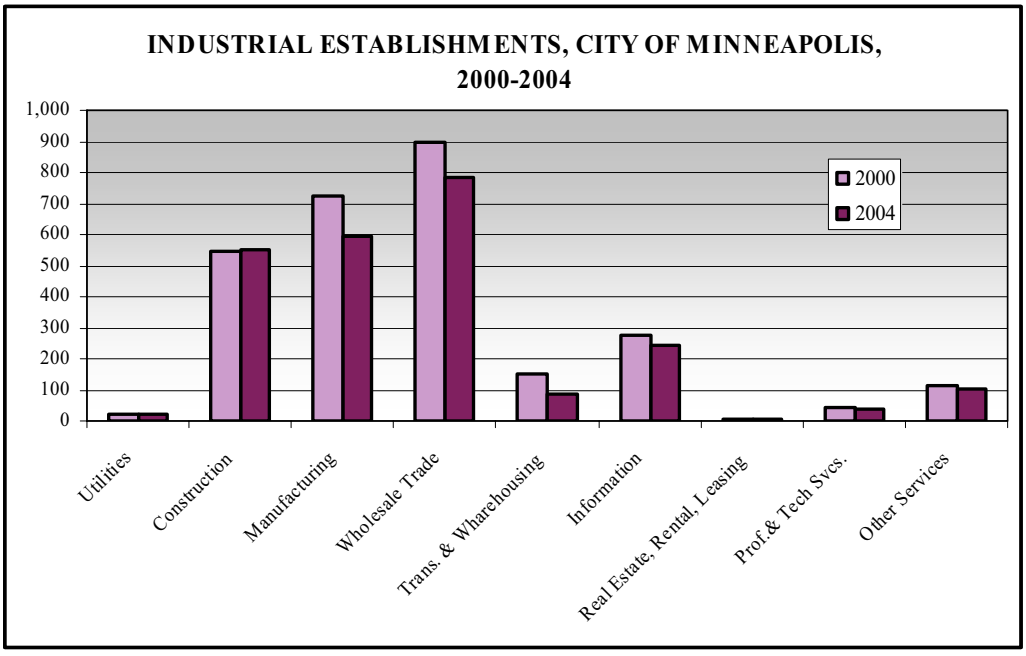


TABLE 1.22
PROJECTED INDUSTRIAL EMPLOYMENT
INDUSTRIAL ZONING
CITY OF MINNEAPOLIS
2000, 2010, & 2020

	Employment						Change					
	2000		2010		2020		2000-2010		2010-2020		2000-2020	
	No.	Pct.	No.	Pct.	No.	Pct.	No.	Pct.	No.	Pct.	No.	Pct.
Utilities	4,510	6.3	3,660	5.5	3,600	5.0	-850	-18.8	-60	-1.6	-910	-20.2
Construction	8,070	11.3	7,960	12.0	9,060	12.6	-110	-1.4	1,100	13.8	990	12.3
Manufacturing	22,550	31.5	18,570	28.0	18,800	26.2	-3,980	-17.6	230	1.2	-3,750	-16.6
Wholesale Trade	12,340	17.2	12,280	18.5	13,520	18.8	-60	-0.5	1,240	10.1	1,180	9.6
Trans. & Warehousing	11,670	16.3	12,080	18.2	14,170	19.7	410	3.5	2,090	17.3	2,500	21.4
Information	8,600	12.0	7,420	11.2	7,480	10.4	-1,180	-13.7	60	0.8	-1,120	-13.0
Real Estate, Rental, Leasing	60	0.1	60	0.1	70	0.1	0	0.0	10	16.7	10	16.7
Prof.& Tech Svcs.	1,860	2.6	2,100	3.2	2,660	3.7	240	12.9	560	26.7	800	43.0
Other Services	2,010	2.8	2,280	3.4	2,520	3.5	270	13.4	240	10.5	510	25.4
Total	71,670	100.0	66,410	100.0	71,880	100.0	-5,260	-7.3	5,470	8.2	210	0.3

Sources: MN Department of Employment and Economic Development; City of Minneapolis; Maxfield Research Inc.

Industrial Employment by Zoning Classification

Tables 1.23 to 1.26 display data on light, medium, and heavy industrial employment in Minneapolis between 2000 and 2004 and projections between 2000 and 2020. Again, Minneapolis zoning classifications disaggregate industries between light, medium, and heavy industrial uses.

Key findings are shown below.

Light Industrial Users (I1)

- Significant job losses occurred among light industrial users in the Manufacturing industry group between 2000 and 2004. The number of jobs decreased by -3,190 (-27.4%). I1 industrial users in the Information and Wholesale Trade industry groups also experienced dramatic job losses over the same period. Information-related businesses lost -1,780 jobs (-20.7%) and Wholesale Trade lost -1,600 jobs (-13.4%).

- The number of light industrial establishments also declined in 2000-2004. The number of light industrial users in the Wholesale Trade and Manufacturing industry groups declined by -115 (-13.2%) and -75 (-18.2%). The number of light industrial information-related establishments also decreased by -35 (-12.7%).

- Projections show light industrial users in the Manufacturing and Information industry groups losing the most employment between 2000 and 2010. Manufacturing is expected to see a loss of -2,420 jobs (-20.8%) and Information is expected to lose -1,180 jobs (-13.7%). In contrast, light industrial users in the Transportation and Warehousing industry group are projected to increase employment by 580 jobs (+41.7%).

TABLE 1.23
ESTIMATED INDUSTRIAL EMPLOYMENT AND ESTABLISHMENTS
LIGHT INDUSTRIAL -- ZONING I-1
CITY OF MINNEAPOLIS
Annual Average 2000-2004

	Employment										Change	
	2000		2001		2002		2003		2004		2000-2004	
	No.	Pct.	No.	Pct.	No.	Pct.	No.	Pct.	No.	Pct.	No.	Pct.
Utilities	1,500	3.0	1,570	3.3	1,490	3.4	1,470	3.5	1,440	3.5	-60	-4.0
Construction	1,730	3.5	1,820	3.8	1,780	4.0	1,790	4.3	1,740	4.2	10	0.6
Manufacturing	11,650	23.4	10,880	22.8	9,280	21.0	8,990	21.4	8,460	20.6	-3,190	-27.4
Wholesale Trade	11,910	23.9	11,550	24.2	10,930	24.7	10,390	24.7	10,310	25.1	-1,600	-13.4
Trans. & Wharehousing	10,710	21.5	10,030	21.0	9,580	21.7	8,620	20.5	8,870	21.6	-1,840	-17.2
Information	8,600	17.3	8,150	17.1	7,480	16.9	7,130	17.0	6,820	16.6	-1,780	-20.7
Real Estate, Rental, Leasing	60	0.1	70	0.1	60	0.1	60	0.1	20	0.0	-40	-66.7
Prof.& Tech Svcs.	1,860	3.7	1,760	3.7	1,730	3.9	1,800	4.3	1,830	4.5	-30	-1.6
Other Services	1,810	3.6	1,870	3.9	1,900	4.3	1,800	4.3	1,570	3.8	-240	-13.3
Total	49,830	100.0	47,700	100.0	44,230	100.0	42,050	100.0	41,060	100.0	-8,770	-17.6

	Establishments										Change	
	2000		2001		2002		2003		2004		2000-2004	
	No.	Pct.	No.	Pct.	No.	Pct.	No.	Pct.	No.	Pct.	No.	Pct.
Utilities	12	0.7	11	0.6	11	0.7	10	0.6	10	0.6	-2	-16.7
Construction	10	0.6	9	0.5	13	0.8	13	0.8	15	1.0	5	50.0
Manufacturing	411	22.8	398	23.0	370	22.1	346	21.9	336	21.7	-75	-18.2
Wholesale Trade	870	48.3	827	47.8	816	48.7	776	49.1	755	48.8	-115	-13.2
Trans. & Wharehousing	84	4.7	79	4.6	77	4.6	69	4.3	69	4.5	-15	-17.6
Information	276	15.3	270	15.6	256	15.3	242	15.3	241	15.6	-35	-12.7
Real Estate, Rental, Leasing	4	0.2	5	0.3	5	0.3	4	0.3	3	0.2	-1	-25.0
Prof.& Tech Svcs.	41	2.3	41	2.4	42	2.5	39	2.5	39	2.5	-2	-4.9
Other Services	94	5.2	90	5.2	86	5.1	83	5.2	80	5.2	-14	-14.9
Total	1,802	100.0	1,730	100.0	1,676	100.0	1,582	100.0	1,548	100.0	-254	-14.1

Sources: MN Department of Employment and Economic Development; City of Minneapolis; Maxfield Research Inc.

TABLE 1.24
ESTIMATED INDUSTRIAL EMPLOYMENT AND ESTABLISHMENTS
MEDIUM INDUSTRIAL -- ZONING I-2
CITY OF MINNEAPOLIS
Annual Average 2000-2004

	Employment										Change	
	2000		2001		2002		2003		2004		2000-2004	
	No.	Pct.	No.	Pct.	No.	Pct.	No.	Pct.	No.	Pct.	No.	Pct.
Construction	6,340	40.9	5,720	39.5	5,430	41.1	5,410	44.4	5,690	47.3	-650	-10.3
Manufacturing	8,170	52.6	7,650	52.9	6,780	51.4	5,900	48.4	5,500	45.8	-2,670	-32.7
Wholesale Trade	200	1.3	190	1.3	200	1.5	210	1.7	200	1.7	0	0.0
Trans. & Wharehousing	740	4.8	830	5.7	700	5.3	580	4.8	550	4.6	-190	-25.7
Other Services	70	0.5	80	0.6	90	0.7	90	0.7	80	0.7	10	14.3
Total	15,520	100.0	14,470	100.0	13,200	100.0	12,190	100.0	12,020	100.0	-3,500	-22.6

	Establishments										Change	
	2000		2001		2002		2003		2004		2000-2004	
	No.	Pct.	No.	Pct.	No.	Pct.	No.	Pct.	No.	Pct.	No.	Pct.
Construction	538	60.4	518	59.5	513	61.3	504	63.2	536	67.8	-2	-0.4
Manufacturing	243	27.3	237	27.2	225	26.9	204	25.6	198	25.1	-45	-18.5
Wholesale Trade	9	1.0	13	1.5	10	1.2	9	1.1	10	1.3	1	11.1
Trans. & Wharehousing	98	11.0	100	11.5	86	10.3	77	9.6	43	5.4	-55	-56.1
Other Services	3	0.3	3	0.3	3	0.4	4	0.5	3	0.4	0	0.0
Total	891	100.0	871	100.0	837	100.0	798	100.0	790	100.0	-101	-11.3

Sources: MN Department of Employment and Economic Development; City of Minneapolis; Maxfield Research Inc.

TABLE 1.25
ESTIMATED INDUSTRIAL EMPLOYMENT AND ESTABLISHMENTS
HEAVY INDUSTRIAL -- ZONING I-3
CITY OF MINNEAPOLIS
Annual Average 2000-2004

	Employment										Change	
	2000		2001		2002		2003		2004		2000-2004	
	No.	Pct.	No.	Pct.	No.	Pct.	No.	Pct.	No.	Pct.	No.	Pct.
Utilities	3,010	47.7	2,570	41.5	2,220	37.7	1,970	38.9	1,990	38.9	-1,020	-33.9
Manufacturing	2,730	43.3	2,610	42.1	2,690	45.7	2,270	44.9	2,300	44.9	-430	-15.8
Wholesale Trade	230	3.6	270	4.4	270	4.6	270	5.3	280	5.5	50	21.7
Trans. & Wharehousing	210	3.3	600	9.7	560	9.5	400	7.9	410	8.0	200	95.2
Other Services	130	2.1	150	2.4	150	2.5	150	3.0	140	2.7	10	7.7
Total	6,310	100.0	6,200	100.0	5,890	100.0	5,060	100.0	5,120	100.0	-1,190	-18.9

	Establishments										Change	
	2000		2001		2002		2003		2004		2000-2004	
	No.	Pct.	No.	Pct.	No.	Pct.	No.	Pct.	No.	Pct.	No.	Pct.
Utilities	11	9.0	14	11.0	15	11.5	13	11.2	13	11.4	2	18.2
Manufacturing	71	58.2	69	54.3	70	53.8	62	53.4	59	51.8	-12	-16.9
Wholesale Trade	20	16.4	21	16.5	21	16.2	19	16.4	18	15.8	-2	-10.0
Trans. & Wharehousing	4	3.3	5	3.9	4	3.1	2	1.7	3	2.6	-1	-25.0
Other Services	16	13.1	18	14.2	20	15.4	20	17.2	21	18.4	5	31.3
Total	122	100.0	127	100.0	130	100.0	116	100.0	114	100.0	-8	-6.6

Sources: MN Department of Employment and Economic Development; City of Minneapolis; Maxfield Research Inc.

- Employment trends are forecast to reverse among these industries between 2010 and 2020. Light industrial users in Manufacturing and Information are predicted to turn around slightly and add 50 jobs (+0.5%) and 60 jobs (+0.8%) respectively. Light industrial users in Wholesale Trade are predicted to undergo a more dramatic turn-around: another 1,190 jobs (+10.1%) in the 2010-2020 decade.

Medium Industrial Users (I2)

- Medium industrial users in the Manufacturing industry lost a considerable amount of jobs between 2000 and 2004. The number of Manufacturing jobs permitted under I2 zoning decreased by -2,670 (-32.7%). Medium industrial users in Construction and Transportation and Warehousing industry groups lost -650 jobs (-10.3%) and -190 jobs (-25.9%).

- In tandem, the Manufacturing and Transportation and Warehousing industry groups saw a decrease in the number of establishments classified as medium industrial of -45 (-56.1%) and -55 (-18.5%).

- Among medium industrial users, the Manufacturing and Construction industry groups are expected to lose jobs during the current decade. The number of jobs in Manufacturing and Construction is projected to decrease by 1,460 jobs (-17.9%) and 80 jobs (-1.3%).

- However, both industry groups are predicted to experience a rise in employment by 2020. Manufacturing shows an increase of 220 jobs (+3.3%) and Construction shows an increase of 1,190 jobs (+19.0%) between 2010 and 2020.

- Medium industrial users in the Transportation and Warehousing industry group show an additional 180 jobs (+24.3%) by 2010 and 470 jobs (+51.1%) by 2020. Projections for Wholesale Trade present a negligible change in the 2000-2010 decade and a +5.0% increase in the next decade.

Heavy Industrial Users (I3)

- Among industries classified as I3 or heavy industry in 2000-2004, the Utilities industry group lost the greatest number of jobs. Utility firms laid off 1,020 workers between 2000 and 2004, which represents a reduction in workforce of -33.9%. Heavy industrial users in the Manufacturing industry lost -480 jobs. In contrast, heavy industrial users in the Transportation and Warehousing industry group gained 200 jobs (+95.2%).

- Despite the loss of over 1,000 jobs, the number of establishments in the Utilities industry group actually increased by 2. The largest loss of establishments in 2000-20002 occurred among heavy industrial users in the Manufacturing industry, which saw 12 firms close (-16.9%) between 2000 and 2004.

TABLE 1.26
PROJECTED INDUSTRIAL EMPLOYMENT
LIGHT, MEDIUM, AND HEAVY INDUSTRIAL
CITY OF MINNEAPOLIS
2000, 2010, & 2020

	Projected Employment						Change					
	2000		2010		2020		2000-2010		2010-2020		2000-2020	
	No.	Pct.	No.	Pct.	No.	Pct.	No.	Pct.	No.	Pct.	No.	Pct.
Light Industrial -- Zoning I-1												
Utilities	1,500	3.7	1,540	4.1	1,600	4.0	40	2.7	60	3.9	100	6.7
Construction	1,730	4.3	1,700	4.5	1,610	4.0	-30	-1.7	-90	-5.3	-120	-6.9
Manufacturing	11,650	28.8	9,230	24.4	9,280	22.9	-2,420	-20.8	50	0.5	-2,370	-20.3
Wholesale Trade	11,910	29.4	11,780	31.2	12,970	32.0	-130	-1.1	1,190	10.1	1,060	8.9
Trans. & Warehousing	1,390	3.4	1,970	5.2	2,690	6.6	580	41.7	720	36.5	1,300	93.5
Information	8,600	21.2	7,420	19.6	7,480	18.5	-1,180	-13.7	60	0.8	-1,120	-13.0
Real Estate, Rental, Leasing	60	0.1	60	0.2	70	0.2	0	0.0	10	16.7	10	16.7
Prof.& Tech Svcs.	1,860	4.6	2,100	5.6	2,660	6.6	240	12.9	560	26.7	800	43.0
Other Services	1,810	4.5	1,980	5.2	2,110	5.2	170	9.4	130	6.6	300	16.6
Total	40,510	100.0	37,780	100.0	40,470	100.0	-2,730	-6.7	2,690	7.1	-40	-0.1
Medium Industrial -- Zoning I-2												
Construction	6,340	40.9	6,260	44.0	7,450	46.0	-80	-1.3	1,190	19.0	1,110	17.5
Manufacturing	8,170	52.6	6,710	47.2	6,930	42.8	-1,460	-17.9	220	3.3	-1,240	-15.2
Wholesale Trade	200	1.3	200	1.4	210	1.3	0	0.0	10	5.0	10	5.0
Trans. & Warehousing	740	4.8	920	6.5	1,390	8.6	180	24.3	470	51.1	650	87.8
Other Services	70	0.5	130	0.9	200	1.2	60	85.7	70	53.8	130	185.7
Total	15,520	100.0	14,220	100.0	16,180	100.0	-1,300	-8.4	1,960	13.8	660	4.3
Heavy Industrial -- Zoning I-3												
Utilities	3,010	47.7	2,120	37.1	2,000	35.8	-890	-29.6	-120	-5.7	-1,010	-33.6
Manufacturing	2,730	43.3	2,630	46.0	2,590	46.4	-100	-3.7	-40	-1.5	-140	-5.1
Wholesale Trade	230	3.6	300	5.2	340	6.1	70	30.4	40	13.3	110	47.8
Trans. & Warehousing	210	3.3	500	8.7	440	7.9	290	138.1	-60	-12.0	230	109.5
Other Services	130	2.1	170	3.0	210	3.8	40	30.8	40	23.5	80	61.5
Total	6,310	100.0	5,720	100.0	5,580	100.0	-590	-9.4	-140	-2.4	-730	-11.6

Sources: MN Department of Employment and Economic Development; City of Minneapolis; Maxfield Research Inc.

- Projections show heavy industrial users in the Manufacturing industry groups will lose slightly less jobs during the current decade. The number of heavy industrial jobs in Manufacturing is projected to decrease by 100 jobs (-3.7%) and 40 jobs (-1.5%) in the 2000-2010 and 2010-2020 decades. Utility businesses, however, are expected to drop -890 jobs (-29.6%) and -120 job (-5.7%) in the 2000-2010 and 2010-2020 decades.

- Heavy industrial users in the Transportation and Warehousing industry group are expected to grow by +290 jobs (+138.1%) between 2000 and 2010, but then lose -60 jobs (-12.0%) between 2010 and 2020.

Wages in the City of Minneapolis and Metro Area

Table 1.27 displays average weekly wages among industry groups in Minneapolis and the Metro Area between 2000 and 2004. Data is from the Minnesota Department of Employment and Economic Development. The data does not account for number of full-time versus part-time workers.

Key points from Table 1.27 follow.

- The average weekly wage in Minneapolis increased from $875 in 2000 to $999 in 2004, or an increase of $65 (+7.4%). The Metro Area average weekly wage rose from $777 to $895 in the same period, which is an increase of $70 (+9.4%). Overall, workers in Minneapolis take home a higher weekly wage than workers in the Metro Area.

- In Minneapolis, the Financial Activities and Professional and Business Services industry groups show the highest average weekly wage and largest increase in wage during the four years. Workers in the Financial Activities industry group averaged a weekly wage of $1,668 in 2004, which is an increase of $219 (+15.1%) from 2000.

- Manufacturing workers wages are rising in Minneapolis as well. These workers earned $974 per week in 2002, an increase of $140 or +16.8%. The TTU industry group shows a comparable 2002 weekly wage of $885. The 2000 weekly wage in the TTU industry was $765, so the 2002 weekly wage of $885 is an increase of $120 or +15.7%.

- However, manufacturing workers in Minneapolis earn slightly less than their counterparts in the Metro Area. In 2004, the average weekly wage in the Manufacturing industry group in the Metro Area was $1,108 (versus $974 in Minneapolis). The Metro Area weekly wage in the Manufacturing industry group is also increasing faster. Between 2000 and 2004, the average weekly metro wage rose by $186 or +20.2% (versus $140 or +16.8%).

- Construction workers in Minneapolis earned slightly more money than Manufacturing or TTU workers, but they did not see the same wage growth in the 2000-2004 period. Construction workers earned an average weekly wage of $1,055 in 2004, which is an increase of $109 (+11.5%) from 2000.

- Unlike the Manufacturing industry group, the weekly wage for the TTU industry in Minneapolis is higher and growing faster than the weekly wage for the same industry in the Metro Area. The average weekly wage for the TTU industry group is $94 higher and the weekly wage growth is $22 higher in Minneapolis.

TABLE 1.27
ESTIMATED AVERAGE WEEKLY WAGE BY INDUSTRY
CITY OF MINNEAPOLIS AND SEVEN-COUNTY METRO AREA
Annual Average 2000-2004

	Average Weekly Wage					Change 2000-2004	
	2000	2001	2002	2003	2004	Dollars	Pct.
City of Minneapolis							
Agriculture[1]	$607 [4]	$636 [4]	$678	$705 [4]	$720 [4]	$113	18.6
Construction	$946 [4]	$973 [4]	$999	$1,021 [4]	$1,055 [4]	$109	11.5
Manufacturing	$834	$841	$883	$912	$974	$140	16.8
TTU[2]	$765	$793	$800	$809	$885	$120	15.7
Information	$986	$933	$961	$986	$1,099	$113	11.5
Financial Activities	$1,449	$1,498 [5]	$1,532 [5]	$1,583 [5]	$1,668 [5]	$219	15.1
Pro. & Bus. Services	$1,038	$1,119	$1,121	$1,136	$1,245	$207	19.9
Edu. & Health Services	$742	$779	$807	$831	$858	$116	15.6
Leisure & Hospitality Svcs.	$374	$387 [4]	$400 [4]	$414 [4]	$421 [4]	$47	12.6
Other Services	$494	$511 [5]	$522 [5]	$540 [5]	$569 [5]	$75	15.1
Government	$816	$866	$909	$957	$1,002	$186	22.8
Total	$875	$914	$916	$940	$999	$65	7.4
Seven-County Metro Area							
Agriculture[1]	$473	$495	$528	$549	$561	$88	18.6
Construction	$913	$939 [3]	$964	$985	$1,018	$105	11.5
Manufacturing	$922	$935	$977	$1,037	$1,108	$186	20.2
TTU[2]	$693	$712 [3]	$730 [3]	$749	$791	$98	14.1
Information	$1,287 [4]	$1,330 [5]	$1,360 [5]	$1,406 [5]	$1,481 [5]	$195	15.1
Financial Activities	$1,077	$1,145	$1,171 [4]	$1,210 [4]	$1,275 [4]	$198	18.4
Pro. & Bus. Services	$975	$999 [3]	$1,023 [3]	$1,047	$1,131	$156	16.0
Edu. & Health Services	$669	$700	$726	$745	$772	$103	15.4
Leisure & Hospitality Svcs.	$302	$313 [3]	$323 [3]	$334	$340	$38	12.6
Other Services	$466	$482 [5]	$493 [5]	$509 [5]	$536 [5]	$70	15.1
Government	$725 [3]	$803	$844	$877	$910	$185	25.6
Total	$777	$803	$820	$847	$895	$70	9.0

[1] Agriculture includes Forestry, Fishing, and Mining.
[2] TTU includes Trade, Transportation, and Utilities.
[3] Data estimated using trend line.
[4] Data estimated based on comparison between City and Metro data.
[5] Data estimated based state wage growth.

Sources: MN Department of Employment and Economic Development; Maxfield Research Inc.

Living Wage Jobs

In 1997, the Minneapolis City Council adopted a living-wage policy for businesses that receive a subsidy from the City. The policy, which was amended in 2001, requires employers to create at least one full-time living wage job for every $25,000 of subsidy received. The policy defines a living-wage job as one the pays at least 110% of the federal poverty level for a family of four without employer-paid health insurance, and 100% with basic health insurance. In 2000, the living wage was $9.02 per hour, and, in 2004, the living wage was $9.97 per hour.

In 2005, the Minneapolis City Council amended the living wage ordinance. The primary change was an increase of the living wage rate to 130% of the federal poverty level for a family of four in cases where no basic health insurance is provided. In 2006, this rate is $12.50 per hour. In cases where basic health insurance is provided, the living wage rate remains equal to 110% of the federal poverty level for a family of four. In 2006, this rate is $10.58 per hour. In addition, the council added stronger enforcement measures.

This analysis looks at 2004 data and the living wage policy in place in 2004. While we recognize that it would be beneficial to examine this data considering the current policy, the data itself is from 2004 and there is no way to differentiate employers who provide health insurance versus those who do not. As the 2004 policy is not as strong as the current policy, the analysis will overestimate slightly the number of living wage jobs under the new policy, especially for industries less likely to provide health insurance coverage. However, the trends compared across industries should be fairly reliable.

Maxfield Research estimated the number of jobs that start at a living wage for each industry. The estimates are shown in the tables below. The estimates are based on wages for occupations in the Metro Area. An occupation was defined as a living wage occupation if 90% of employees received an hourly wage above the living wage. This wage data comes from the Occupational Employment Survey conducted by the Minnesota Department of Employment and Economic Development. In order to determine the number of workers in an industry who are paid a living wage, Maxfield Research applied the national distribution of occupations within each industry. This data is published by the U.S. Bureau of Labor Statistics. Estimates of education and experience level required for each occupation were also derived from published data at the U.S. Bureau of Labor Statistics.

These estimates represent estimates of the number of jobs that start at a living wage, not the number of workers who are paid a living wage. As a person gains experience in a non-living-wage job, he or she will see their wage rise above the living-wage level. The number of workers with jobs starting at a living wage and who are now paid a living wage are not included in these estimates.

It is important to point out that these are estimates only. We believe these estimates are somewhat conservative and that the numbers underestimate the true number of living-wage jobs within an industry in the City. We believe this is true primarily because the estimates are based on Metro wages which tend to be slightly lower than wages in the City of Minneapolis. The 90% threshold may also contribute to the conservative nature of the estimate.

While the estimates have some flaws, these estimates are important because they show which occupations provide the greatest economic benefit to workers within those industries. The data also show how changes in the types of industries located in the City of Minneapolis affect the quality of jobs within the City. In addition, the biases in the estimates apply generally across industries, so relative comparisons are valid.

Table 1.28 shows the estimated number of living-wage jobs for industry groups within the City of Minneapolis in 2000 and 2004. Key points follow.

- There were about 158,000 jobs starting at a living wage in Minneapolis in 2004, representing about 56% all jobs. The number of living-wage jobs declined by about -18,000 jobs from 2000, a decline of about -10%. Over the period, the total number of jobs in the City declined by -9% (-27,000 jobs).

- The number of living-wage jobs was about 830,000 in the Seven-County Metro Area in 2004, a decline of about -25,000 jobs, or -3%, from 2000.

- The Professional and Businesses Services industry group had the highest number of living wage jobs in 2004, with 37,000 jobs. This industry group also saw the largest decline over the 2000-2004 period, with a loss of -5,400 jobs (-13%) over the period. The other industry groups with the most living-wage jobs in 2004 were Education and Health Services (36,000 jobs), Financial Activities (25,000 jobs), and Transportation, Trade, and Utilities (20,000 jobs)

- The Construction industry group had the largest percentage of living-wage jobs in 2004, 89% of all jobs being classified as living wage. Other industry groups with high percentages of living-wage jobs include Financial Activities (76%), Professional and Business Services (69%), Information (66%), and Manufacturing (63%).

- The Leisure and Hospitality, Agriculture, and Other Services industry groups had the lowest percentage of living-wage jobs, with 14%, 30%, and 36%, respectively.

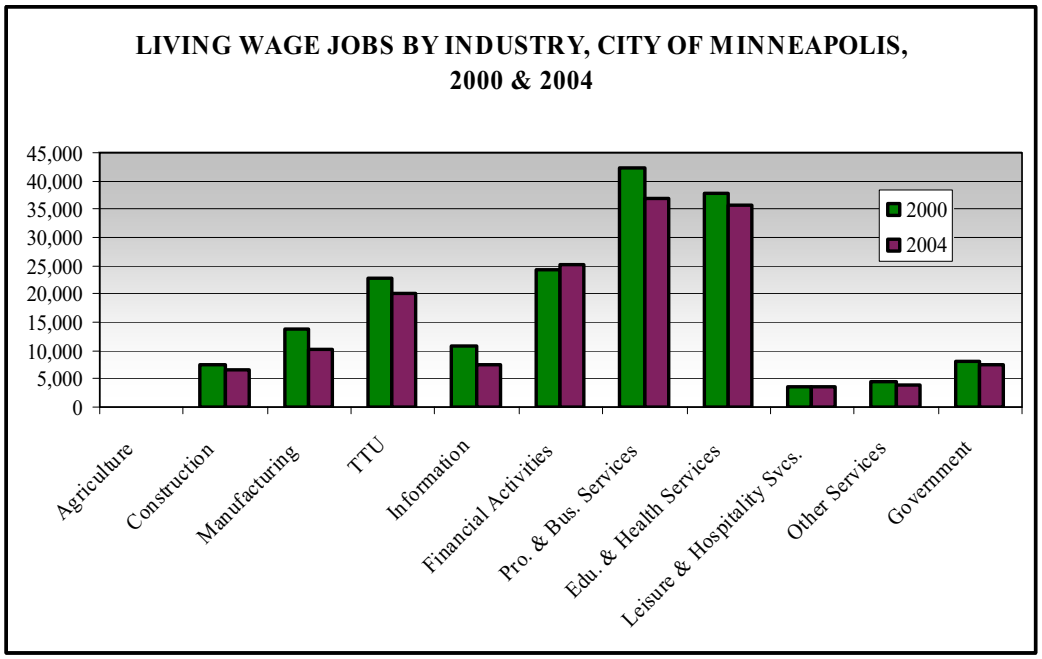
- With the exception of Financial Activities and Leisure and Hospitality Services, all other industries lost living-wage jobs over the 2000-2004 period in the City of Minneapolis.

TABLE 1.28
ESTIMATED JOBS STARTING AT A LIVING WAGE BY INDUSTRY
CITY OF MINNEAPOLIS
Annual Average 2000 & 2004

	Employment						Change			
	2000			2004			2000-2004			
	Living-Wage Jobs	All Jobs	Pct.	Living-Wage Jobs	All Jobs	Pct.	Living-Wage Jobs No.	Living-Wage Jobs Pct.	All Jobs No.	All Jobs Pct.
City of Minneapolis										
Agriculture[1]	40	100	40%	30	100	30%	-10	-25%	0	0%
Construction	7,420	8,120	91%	6,630	7,470	89%	-790	-11%	-650	-8%
Manufacturing	13,930	22,740	61%	10,330	16,380	63%	-3,600	-26%	-6,360	-28%
TTU[2]	22,670	47,740	47%	20,200	41,160	49%	-2,470	-11%	-6,580	-14%
Information	10,940	16,360	67%	7,620	11,540	66%	-3,320	-30%	-4,820	-29%
Financial Activities	24,330	34,420	71%	25,120	33,220	76%	790	3%	-1,200	-3%
Pro. & Bus. Services	42,340	64,650	65%	37,000	53,560	69%	-5,340	-13%	-11,090	-17%
Edu. & Health Services	37,800	65,100	58%	35,730	68,780	52%	-2,070	-5%	3,680	6%
Leisure & Hospitality Svcs.	3,460	25,660	13%	3,610	26,650	14%	150	4%	990	4%
Other Services	4,570	11,190	41%	3,870	10,790	36%	-700	-15%	-400	-4%
Government	8,010	13,270	60%	7,470	12,840	58%	-540	-7%	-430	-3%
Total	175,510	309,352	57%	157,610	282,491	56%	-17,900	-10%	-26,861	-9%
Seven-County Metro Area										
Total	854,526	1,600,536	53%	829,487	1,561,241	53%	-25,039	-3%	-39,295	-2%

[1] Agriculture includes Forestry, Fishing, and Mining.
[2] TTU includes Trade, Transportation, and Utilities.
[3] Data estimated by applying 7-County Metro wages for occupations to the national distribution of occupations within industries. See Appendix 1.

Sources: MN Department of Employment and Economic Development; US Bureau of Labor Statistics; Maxfield Research Inc.



Industrial Employment

Table 1.29 and Table 1.30 show the estimated number of jobs starting at a living wage for industrially zoned industry groups. Table 1.29 shows the data for all industrially zoned industry groups, and Table 1.30 shows the data separately for light, medium, and heavy industrially zoned industry groups. These estimates were made by Maxfield Research Inc. Key points from the data follow.

- Industrial zoned employers accounted for 34,000 jobs starting at a living wage in Minneapolis in 2004.

- Shown in Table 1.29, living-wage jobs made up 53% of all jobs in Minneapolis in 2004. In comparison, living-wage jobs made up 68% of industrially zoned industries in 2004.

- Industrial zoned employers accounted for about one in five (22%) of all living wage jobs in Minneapolis in 2004.

- Between 2000 and 2004, Minneapolis lost -6,700 industrial jobs (-16%) starting at a living wage. Of that loss, the Manufacturing industry group accounted for -3,600 jobs, or 54% of the loss.

- The number of industrial living-wage jobs declined at a greater percentage rate (-16%) between 2000 and 2004 than the percentage decline of all living-jobs over the same period (3%, shown in Table 21). However, the number of industrial living-wage jobs declined at a slower rate over the period than all industrial jobs (-18%).

- In 2004, the industry groups with the highest percentage of jobs starting a living wage were Real Estate, Rental, Leasing (100%), Construction (89%), Utilities (83%), and Professional and Technical Services (76%). The industry groups with the lowest percentage of jobs starting at a living wage were Other Services (53%) and Transportation and Warehousing (55%).

- Only Transportation and Warehousing and Other Services added jobs starting at a living wage between 2000 and 2004 in Minneapolis. All other industry groups lost jobs starting at a living wage over the period.

- Shown in Table 1.30, employers appropriate for light industrial zoning (I1) accounted for the most industrial jobs starting at a living wage in 2004, a total of about 21,000 jobs or 61% of all industrial jobs starting at a living wage. There were about 9,000 medium industrial (I2) jobs starting at living wage and about 4,000 heavy industrial (I3) jobs starting at a living wage.

- Between 2000 and 2004, the City lost -3,600 jobs (-15%) starting at a living wage in light industrial employers, -2,400 jobs (-21%) starting at a living wage in medium industrial employers, and -630 jobs (-14%) starting at a living wage in heavy industrial employers.

TABLE 1.29
ESTIMATED JOBS STARTING AT A LIVING WAGE FOR INDUSTRIAL ZONED EMPLOYERS
CITY OF MINNEAPOLIS
Annual Average 2000 & 2004

	Employment						Change			
	2000			2004			2000-2004			
	Living-Wage Jobs	All Jobs	Pct.	Living-Wage Jobs	All Jobs	Pct.	Living-Wage Jobs No.	Living-Wage Jobs Pct.	All Jobs No.	All Jobs Pct.
All Industrial Zoned Employers										
Utilities	3,410	4,510	76%	2,830	3,430	83%	-580	-17%	-1,080	-24%
Construction	7,420	8,070	92%	6,630	7,430	89%	-790	-11%	-640	-8%
Manufacturing	13,890	22,550	62%	10,300	16,260	63%	-3,590	-26%	-6,290	-28%
Wholesale Trade	7,490	12,340	61%	6,680	10,790	62%	-810	-11%	-1,550	-13%
Trans. & Wharehousing	5,570	11,664	48%	4,610	9,831	47%	-960	-17%	-1,833	-16%
Information	5,450	8,600	63%	4,550	6,820	67%	-900	-17%	-1,780	-21%
Real Estate, Rental, Leasing	40	60	67%	20	20	100%	-20	-50%	-40	-67%
Prof.& Tech Svcs.	1,430	1,860	77%	1,390	1,830	76%	-40	-3%	-30	-2%
Other Services	540	2,010	27%	560	1,790	31%	20	4%	-220	-11%
Total	45,240	71,664	63%	37,570	58,201	65%	-7,670	-17%	-13,463	-19%

[1] Agriculture includes Forestry, Fishing, and Mining.
[2] TTU includes Trade, Transportation, and Utilities.
[3] Data estimated by applying 7-County Metro wages for occupations to the national distribution of occupations within industries. See Appendix 1.

Sources: MN Department of Employment and Economic Development; US Bureau of Labor Statistics; Maxfield Research Inc.

TABLE 1.30
ESTIMATED JOBS STARTING AT A LIVING WAGE FOR INDUSTRIAL ZONED EMPLOYERS
BY ZONING CLASSIFICATION
CITY OF MINNEAPOLIS
Annual Average 2000 & 2004

	Employment						Change			
	2000			2004			2000-2004			
	Living-Wage Jobs	All Jobs	Pct.	Living-Wage Jobs	All Jobs	Pct.	Living-Wage Jobs No.	Living-Wage Jobs Pct.	All Jobs No.	All Jobs Pct.
Light Industrial -- Zoning I-1										
Utilities	1,070	1,500	71%	1,120	1,440	78%	50	5%	-60	-4%
Construction	1,610	1,730	93%	1,610	1,740	93%	0	0%	10	1%
Manufacturing	6,860	11,650	59%	4,980	8,460	59%	-1,880	-27%	-3,190	-27%
Wholesale Trade	7,220	11,910	61%	6,380	10,310	62%	-840	-12%	-1,600	-13%
Trans. & Wharehousing	4,910	10,714	46%	3,920	8,871	44%	-990	-20%	-1,843	-17%
Information	5,450	8,600	63%	4,550	6,820	67%	-900	-17%	-1,780	-21%
Real Estate, Rental, Leasing	40	60	67%	20	20	100%	-20	-50%	-40	-67%
Prof.& Tech Svcs.	1,430	1,860	77%	1,390	1,830	76%	-40	-3%	-30	-2%
Other Services	380	1,810	21%	390	1,570	25%	10	3%	-240	-13%
Total	28,970	49,834	58%	24,360	41,061	59%	-4,610	-16%	-8,773	-18%
Medium Industrial -- Zoning I-2										
Construction	5,810	6,340	92%	5,020	5,690	88%	-790	-14%	-650	-10%
Manufacturing	5,250	8,170	64%	3,730	5,500	68%	-1,520	-29%	-2,670	-33%
Wholesale Trade	110	200	55%	110	200	55%	0	0%	0	0%
Trans. & Wharehousing	510	740	69%	390	550	71%	-120	-24%	-190	-26%
Other Services	60	70	86%	60	80	75%	0	0%	10	14%
Total	11,740	15,520	76%	9,310	12,020	77%	-2,430	-21%	-3,500	-23%
Heavy Industrial -- Zoning I-3										
Utilities	2,340	3,010	78%	1,710	1,990	86%	-630	-27%	-1,020	-34%
Manufacturing	1,780	2,730	65%	1,590	2,300	69%	-190	-11%	-430	-16%
Wholesale Trade	160	230	70%	190	280	68%	30	19%	50	22%
Trans. & Wharehousing	150	210	71%	300	410	73%	150	100%	200	95%
Other Services	100	130	77%	110	140	79%	10	10%	10	8%
Total	4,530	6,310	72%	3,900	5,120	76%	-630	-14%	-1,190	-19%

[3] Data estimated by applying 7-County Metro wages for occupations to the national distribution of occupations within industries. See Appendix 1.

Sources: MN Department of Employment and Economic Development; US Bureau of Labor Statistics; Maxfield Research Inc.

Metro Area Occupations Starting at a Living Wage

Table 1.31 shows occupations starting at a living wage with the largest numbers in the Metro Area in 2004. Table 1.32 shows the largest Seven-County Metro Area occupations starting at a living wage requiring only a high school diploma or on-the-job-training. Table 1.33 shows the largest Metro Area occupations starting at a living wage requiring a two-year vocational degree or associates degree. This data is important because it shows what types of occupations provide jobs starting at a living wage.

Shown in Table 1.27, the average weekly wage in Minneapolis is about 12% higher than for the Metro Area as a whole. It is reasonable to conclude that hourly wages in Minneapolis would be slightly higher than those shown in these tables. However, data for the City is not available.

Key points from these tables follow.

- Of the 40 largest occupations shown in Table 1.31, very few start at wage levels close to the 2004 living wage of $9.97. The wage range for these occupations typically starts at well over $11 or $12 per hour. The low end of the wage range starts at $10.05 for First Line Supervisors/Managers of Retail Workers and goes up to $34.64 for Computer and Information Systems Managers. The median wage for these occupations ranges from $15.42 to $50.33.

- For the 40 largest occupations with wages starting above the living wage and requiring only a high school diploma or on-the-job training, Table 1.32 shows the low end of the wage range starts at $10.05 for First line supervisors/managers of retail workers and goes up to $21.03 for First line supervisors/managers of non-retail workers. The median wage for occupations ranges from $13.20 to $35.33. To be expected, these wages tend to be slightly lower than in Table 24.

- For the occupations with wages starting above the living wage and requiring a two-year degree or associates degree, Table 1.33 shows the low end of the wage range begins at $10.25 for Medical Records and Health Information Technicians and goes up to $22.68 for Diagnostic Medical Sonographers. The median wage for occupations ranges from $14.05 to $31.93

TABLE 1.31

LARGEST OCCUPATIONS WITH STARTING WAGES MORE THAN 2004 LIVING WAGE [1]
TWIN CITIES METRO AREA
2004

Occup. Code	Occupation Name	Metro Area Employment	Wage Range [2]	Median Hourly Wage
131199	Business Operations Specialists, All Other	29,780	14.18 - 42.92	23.13
291111	Registered Nurses	29,600	21.02 - 37.29	28.55
434051	Customer Service Representatives	29,130	11.25 - 22.52	15.42
414012	Sales Representatives, Wholesale and Manufacturing	24,570	15.29 - 58.07	27.30
111021	General and Operations Managers	22,180	21.72 - 71.00	44.12
436011	Executive Secretaries & Administrative Assistants	21,070	13.70 - 24.80	18.37
433031	Bookkeeping, Accounting, and Auditing Clerks	20,900	11.53 - 21.65	16.10
431011	First-Line Supervisors/Managers of Office and Adm.	18,650	14.95 - 33.06	21.90
132011	Accountants and Auditors	17,020	18.58 - 43.66	26.02
533032	Truck Drivers, Heavy and Tractor-Trailer	15,190	14.00 - 25.45	19.31
252021	Elementary School Teachers, Exc. Special Educ.	14,050	14.87 - 32.71	21.51
151031	Computer Software Engineers, Applications	13,500	24.77 - 52.67	37.28
472031	Carpenters	13,470	12.30 - 32.36	21.24
411011	First-Line Supervis./Managers of Retail Sales Work	13,370	10.13 - 27.55	15.98
252031	Secondary School Teachers, Except Special and Voc. Ed.	13,090	15.36 - 31.90	22.01
499042	Maintenance and Repair Workers, General	10,510	11.79 - 25.74	17.38
413099	Sales Representatives, Services, All Other	10,230	15.74 - 46.06	25.38
511011	First-Line Supervisors/Managers of Production	10,110	15.95 - 35.26	23.36
231011	Lawyers	8,920	25.77 - 71.00	46.01
252022	Middle School Teachers, Except Special and Voc. Ed.	8,450	13.73 - 30.48	19.16
471011	First-Line Supervisors/Managers of Construction	8,380	18.07 - 39.01	27.57
113031	Financial Managers	8,370	30.84 - 71.00	47.32
151041	Computer Support Specialists	8,130	14.88 - 33.55	21.34
292061	Licensed Practical and Licensed Vocational Nurses	8,110	14.54 - 22.05	17.87
151051	Computer Systems Analysts	8,010	22.24 - 44.85	32.22
131111	Management Analysts	7,820	19.37 - 61.47	32.48
119199	Managers, All Other	7,660	29.37 - 71.00	44.88
436014	Secretaries, Except Legal, Medical, and Executive	7,120	11.64 - 21.57	16.11
493023	Automotive Service Technicians and Mechanics	6,890	10.49 - 25.98	16.77
411012	First-Line Super./Manag., Non-Retail Sales Workers	6,880	21.03 - 71.00	35.33
151099	Computer Specialists, All Other	6,860	19.19 - 45.47	31.93
113021	Computer and Information Systems Managers	6,710	31.64 - 71.00	47.86
414011	Sales Representatives, Wholesale & Manufacturing	6,460	18.37 - 67.08	31.33
132072	Loan Officers	6,390	14.61 - 71.00	27.78
472111	Electricians	6,370	20.76 - 35.75	31.30
413031	Securities, Commodities, and Financial Services Sales	6,220	18.25 - 71.00	30.82
472061	Construction Laborers	6,180	12.78 - 27.80	21.48
112022	Sales Managers	6,030	27.80 - 71.00	50.33
472152	Plumbers, Pipefitters, and Steamfitters	6,010	19.55 - 36.69	30.57
433021	Billing and Posting Clerks and Machine Operators	5,890	12.08 - 20.43	15.57

[1] 2004 Living Wage for City of Minneapolis was $9.97 per hour.

[2] Wage range is the 10th percentile wage to the 90th percentile wage.

Sources: OES, Minnesota Department of Employment and Economic Development; Maxfield Research Inc.

TABLE 1.32

LARGEST OCCUPATIONS WITH STARTING WAGES MORE THAN 2004 LIVING WAGE [1] REQUIRING HIGH SCHOOL DIPLOMA OR ON-THE-JOB TRAINING
TWIN CITIES METRO AREA
2004

Occup. Code	Occupation Name	Metro Area Employment	Wage Range [2]	Median Hourly Wage
434051	Customer Service Representatives	29,130	11.25 - 22.52	15.42
414012	Sales Representatives, Wholesale and Manufacturing	24,570	15.29 - 58.07	27.30
433031	Bookkeeping, Accounting, and Auditing Clerks	20,900	11.53 - 21.65	16.10
431011	First-Line Supervisors/Managers of Office and Admi	18,650	14.95 - 33.06	21.90
533032	Truck Drivers, Heavy and Tractor-Trailer	15,190	14.00 - 25.45	19.31
472031	Carpenters	13,470	12.30 - 32.36	21.24
411011	First-Line Supervis./Managers of Retail Sales Work	13,370	10.13 - 27.55	15.98
499042	Maintenance and Repair Workers, General	10,510	11.79 - 25.74	17.38
413099	Sales Representatives, Services, All Other	10,230	15.74 - 46.06	25.38
511011	First-Line Supervisors/Managers of Production and	10,110	15.95 - 35.26	23.36
471011	First-Line Supervisors/Managers of Construction Tr	8,380	18.07 - 39.01	27.57
493023	Automotive Service Technicians and Mechanics	6,890	10.49 - 25.98	16.77
411012	First-Line Super./Manag., Non-Retail Sales Workers	6,880	21.03 - 71.00	35.33
414011	Sales Representatives, Wholesale & Manufacturing	6,460	18.37 - 67.08	31.33
472111	Electricians	6,370	20.76 - 35.75	31.30
413031	Securities, Commodities, and Financial Services Sa	6,220	18.25 - 71.00	30.82
472061	Construction Laborers	6,180	12.78 - 27.80	21.48
472152	Plumbers, Pipefitters, and Steamfitters	6,010	19.55 - 36.69	30.57
433021	Billing and Posting Clerks and Machine Operators	5,890	12.08 - 20.43	15.57
491011	First-Line Supervisors/Managers of Mechanics, Inst	5,850	16.42 - 36.32	25.93
514041	Machinists	5,750	14.48 - 26.78	19.86
537051	Industrial Truck and Tractor Operators	5,730	10.86 - 21.61	15.54
533022	Bus Drivers, School	5,650	11.24 - 16.40	13.20
433011	Bill and Account Collectors	5,640	11.31 - 24.36	16.49
434131	Loan Interviewers and Clerks	5,550	11.61 - 23.97	15.78
292052	Pharmacy Technicians	5,150	10.82 - 17.94	15.01
515023	Printing Machine Operators	5,060	12.04 - 27.05	17.38
519061	Inspectors, Testers, Sorters, Samplers & Weighers	4,790	10.84 - 23.01	16.05
472073	Operating Engineers and Other Construction Equipme	4,780	18.93 - 29.27	24.97
435052	Postal Service Mail Carriers	4,100	16.01 - 26.70	22.29
514031	Cutting, Punching, and Press Machine Setters, Oper	3,900	10.15 - 21.38	14.97
333051	Police and Sheriff's Patrol Officers	3,530	18.98 - 31.58	24.97
435053	Postal Service Mail Sorters, Processors, and Proce	3,450	13.83 - 21.75	19.53
531031	First-Line Supervisors/Managers of Transportation	3,390	12.31 - 33.91	21.52
493031	Bus & Truck Mechanics & Diesel Engine Specialists	3,240	14.67 - 25.99	19.90
435061	Production, Planning, and Expediting Clerks	3,130	14.28 - 27.44	19.84
499041	Industrial Machinery Mechanics	3,090	14.78 - 27.78	20.59
371011	First-Line Supervisors/Managers of Housekeeping an	3,030	10.05 - 21.77	14.55
472141	Painters, Construction and Maintenance	3,000	12.60 - 27.24	18.58
131051	Cost Estimators	2,920	17.38 - 40.04	25.98

[1] 2004 Living Wage for City of Minneapolis was $9.97 per hour.

[2] Wage range is the 10th percentile wage to the 90th percentile wage.

Sources: OES, Minnesota Department of Employment and Economic Development; Maxfield Research Inc.

TABLE 1.33

LARGEST OCCUPATIONS WITH STARTING WAGES MORE THAN 2004 LIVING WAGE [1] REQUIRING 2-YEAR ASSOCIATES DEGREE OR VOCATIONAL DEGREE
TWIN CITIES METRO AREA
2004

Occup. Code	Occupation Name	Metro Area Employment	Wage Range [2]	Median Hourly Wage
291111	Registered Nurses	29,600	21.02 - 37.29	28.55
436011	Executive Secretaries & Administrative Assistants	21,070	13.70 - 24.80	18.37
292061	Licensed Practical and Licensed Vocational Nurses	8,110	14.54 - 22.05	17.87
436014	Secretaries, Except Legal, Medical, and Executive	7,120	11.64 - 21.57	16.11
514121	Welders, Cutters, Solderers, and Brazers	4,490	13.58 - 26.51	19.11
232011	Paralegals and Legal Assistants	4,100	15.44 - 31.29	22.25
436013	Medical Secretaries	3,890	11.95 - 18.29	14.82
436012	Legal Secretaries	3,290	15.25 - 27.93	21.88
173029	Engineering Technicians, Exc. Drafters, All Other	3,160	18.29 - 35.95	26.06
173023	Electrical and Electronic Engineering Technicians	2,980	16.03 - 34.61	23.43
492022	Telecommunications Equipment Installers and Repair	2,750	18.81 - 30.29	25.34
292021	Dental Hygienists	2,320	20.87 - 36.14	31.93
292071	Medical Records and Health Information Technicians	2,120	10.25 - 21.01	14.05
492011	Computer, Automated Teller & Office Mach. Repairer	1,990	11.27 - 25.36	17.02
173026	Industrial Engineering Technicians	1,950	16.32 - 29.52	22.67
173027	Mechanical Engineering Technicians	1,920	16.75 - 32.68	22.67
319094	Medical Transcriptionists	1,900	12.25 - 18.31	15.47
173013	Mechanical Drafters	1,880	15.72 - 33.25	22.46
292012	Medical and Clinical Laboratory Technicians	1,800	13.01 - 21.94	17.31
292034	Radiologic Technologists and Technicians	1,590	16.66 - 31.57	23.87
173022	Civil Engineering Technicians	1,570	14.56 - 29.08	22.13
292041	Emergency Medical Technicians and Paramedics	1,310	12.06 - 28.11	18.44
292055	Surgical Technologists	1,110	15.56 - 26.38	20.26
292056	Veterinary Technologists and Technicians	1,080	10.99 - 18.69	14.46
173011	Architectural and Civil Drafters	1,070	15.57 - 28.79	21.56
232099	Legal Support Workers, All Other	960	15.97 - 32.47	21.73
173012	Electrical and Electronics Drafters	840	16.57 - 34.86	24.74
194031	Chemical Technicians	720	14.17 - 27.05	18.75
194021	Biological Technicians	720	10.92 - 22.79	14.95
173031	Surveying and Mapping Technicians	710	14.70 - 28.98	20.85
291199	Health Diagnosing & Treating Practitioners, Other	670	22.12 - 71.00	30.28
492094	Electrical and Electronics Repairers, Commercial a	650	16.26 - 27.75	21.33
173019	Drafters, All Other	600	14.29 - 29.00	18.23
291126	Respiratory Therapists	590	19.72 - 28.64	24.78
232092	Law Clerks	590	12.57 - 41.90	19.78
292032	Diagnostic Medical Sonographers	440	22.68 - 34.81	27.92
194011	Agricultural and Food Science Technicians	420	12.20 - 28.75	18.24
292031	Cardiovascular Technologists and Technicians	400	10.80 - 29.01	19.06
194091	Environmental Science and Protection Technicians,	320	12.70 - 32.71	17.63
292051	Dietetic Technicians	290	12.75 - 21.24	16.61

[1] 2004 Living Wage for City of Minneapolis was $9.97 per hour.

[2] Wage range is the 10th percentile wage to the 90th percentile wage.

Sources: OES, Minnesota Department of Employment and Economic Development; Maxfield Research Inc.

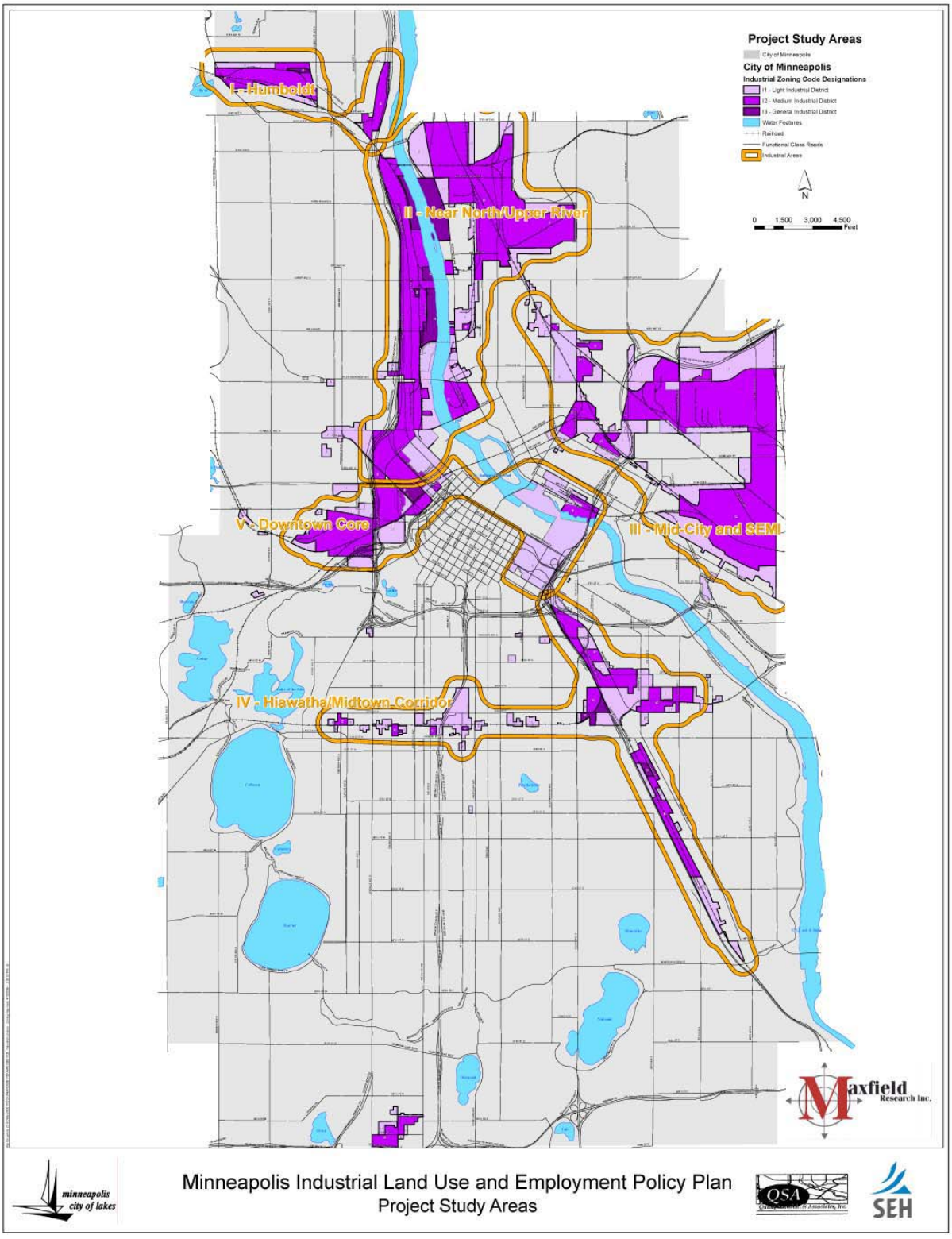
Employment Trends in Industrial Study Areas

In order to understand the strengths and weaknesses of the City's supply of industrial land and buildings, our analysis examines the building, land, and market characteristics city-wide and in five smaller areas.

- Area I: Humboldt Industrial Area
- Area II: Near North/Upper River Area
- Area III: Mid-City and SEMI Area
- Area IV: Hiawatha Corridor Area
- Area V: Downtown Core Area

The five analysis areas correspond to five sets of community meetings held with neighborhoods in and near these areas. (For purposes of the supply analysis, much of Area V: Downtown Core – namely, the western edge of Downtown and the Bassett Creek Valley – is included in Area II: Near North/Upper River.)

Each analysis area has its own supply profile. Many of the tables and charts presented in this document disaggregate the data city-wide and by analysis area. The five areas are displayed on the following map.


Project Study Areas
City of Minneapolis
Industrial Zoning Code Designations
I1 - Light Industrial District
I2 - Medium Industrial District
I3 - General Industrial District
Water Features
Railroad
Functional Class Roads
Industrial Areas
N
0 1,500 3,000 4,500
Feet
I - Humboldt
II - Near North/Upper River
III - Mid-City and SEMI
IV - Hiawatha/Midtown Corridor
V - Downtown Core
Maxfield Research Inc.
minneapolis city of lakes
Minneapolis Industrial Land Use and Employment Policy Plan
Project Study Areas
QSA
SEH

Area I: Humboldt Industrial Area

The Humboldt Industrial Area is roughly bordered to the east by Humboldt Avenue North, to the north by 51st Avenue North, to the east by Victory Memorial Drive, and to the south by the 45th Avenue North. Table 1.34 presents the number of establishments, jobs, living wage jobs, and percentage of living wage jobs zoned for light (I1), medium (I2), and heavy (I3) industrial uses.

Key points from Table 1.34 are shown below.

- Most establishments in the Humboldt Industrial Area are light and medium industrial users. Twelve establishments are I1 users, 14 establishments are I2 users, and 3 establishments are I3 users.

- Businesses associated with medium industrial use employ the most workers. I2 users employ 294 workers, while I1 and I3 users employ 87 and 109 workers, respectively.

- Heavy industrial users show the highest percentage of living wage jobs. Eighty-one percent of jobs associated with I3 use are living wage jobs. Sixty-nine percent of jobs at I2 users and 67% of jobs associated with I1 users are living wage.

- Construction businesses operating as medium-industrial users employ the largest number of living wage jobs in Area I. Of the 350 living wage jobs in Area 1, 102 are employed by construction businesses.

- Manufacturing firms operating as heavy-industrial users provide a significant number of living wage jobs despite a small number of establishments. Only 2 heavy-industry manufacturing firms operate in Area 1. However, those two businesses supply 70 living wage jobs.

TABLE 1.34
ESTIMATED INDUSTRIAL EMPLOYMENT AND ESTABLISHMENTS
BY ZONING CLASSIFICATION
AREA 1 -- HUMBOLDT INDUSTRIAL AREA
2004

	Establishments	Employment		
		Living-Wage Jobs	All Jobs	Pct.
Light Industrial -- Zoning I-1				
Construction	2	15	17	88%
Manufacturing	3	23	35	66%
Wholesale Trade	5	16	23	70%
Trans. & Warehousing	2	4	12	33%
Total	12	58	87	67%
Medium Industrial -- Zoning I-2				
Construction	7	102	119	86%
Manufacturing	4	49	85	58%
Wholesale Trade	1	41	73	56%
Trans. & Warehousing	2	12	17	71%
Total	14	204	294	69%
Heavy Industrial -- Zoning I-3				
Manufacturing	2	70	87	80%
Other Services	1	18	22	82%
Total	3	88	109	81%
Total				
Total	**29**	**350**	**490**	71%

Sources: InfoUSA; Maxfield Research Inc.

Table 1.35 shows the major industrial employers in Area I. The product or services provided by the firms and estimated employee count are displayed next to the employer name.

- The largest employers are Mereen Johnson Machine Company and Owens-Corning Fiberglass. Mereen Johnson Machine Company employs 100 people and Owens-Corning Fiberglass employs 77 people. All the employers are industrial-zoned land users.

TABLE 1.35
MAJOR INDUSTRIAL EMPLOYERS
AREA 1 -- HUMBOLDT INDUSTRIAL AREA
2004

Employer	Products/Services	Estimated Employee Count
Mereen Johnson Machine Co	Woodworkers	100
Owens-Corning Fiberglass	Asphalt Felts & Coatings (Mfrs)	77
Bfi Recycling	Recycling Centers (Wholesale)	73
Broadway Equipment Co	Car Washing & Polishing Equipment-Mfrs	50
Airlift Doors	Radio/TV Broadcasting/Comm Equip (Mfrs)	30
Minneapolis Refuse Inc	Garbage Collection	22
Travel Products Inc	Canvas & Related Products (Mfrs)	20

Sources: InfoUSA; Maxfield Research Inc.

Area II: Near North/Upper River Area

The Near North/Upper River Area spans the industrial areas on the east and west banks of the Mississippi River. On the east bank, the area reaches Central Avenue Northeast to the east, 37th Avenue Northeast to the north, and 5th Avenue Northeast to the South. On the west bank, the area encompasses Interstate 94 and Bryant Avenue North to the west and 37th Avenue North to the north. The southern part of the area reaches Penn Avenue South and Hennepin Avenue South in order to capture the Near North neighborhood.

Table 1.36 presents the number of establishments, jobs, living wage jobs, and percentage of living wage jobs zoned for light (I1), medium (I2), and heavy (I3) industrial uses. Key points from Table 1.36 are shown below.

- Most establishments in the Near North/Upper River Area are light and medium industrial users. Of the 626 industrial users, 333 establishments are I1 users, 255 establishments are I2 users, and 38 establishments are I3 users.

- Light industrial users employ the most workers. I1 users employ 6,693 workers, while I2 and I3 users employ 4,904 and 999 workers, respectively.

- Medium and heavy industrial users in the Near North/Upper River Area show the highest percentage of living wage jobs. Seventy-five percent of jobs associated with I2 and 72% of jobs associated with heavy industrial use are living wage jobs. Fifty-nine percent of jobs at I1 users pay a living wage.

- Manufacturing businesses provide a significant number of living wage jobs in Area II. Manufacturing firms operating as light-industrial users employ the largest number of living wage jobs. Light manufacturing businesses provide 2,283 living wage jobs. Manufacturing businesses under I2 zoning also provide the second largest number of living wage jobs with 1,583 jobs.

TABLE 1.36
ESTIMATED INDUSTRIAL EMPLOYMENT AND ESTABLISHMENTS
BY ZONING CLASSIFICATION
AREA 2 -- NORTH AND NORTHEAST INDUSTRIAL AREA
2004

	Establishments	Employment		
		Living-Wage Jobs	All Jobs	Pct.
Light Industrial -- Zoning I-1				
Utilities	1	2	2	100%
Construction	4	138	156	88%
Manufacturing	109	2,283	3,745	61%
Wholesale Trade	134	1,028	1,717	60%
Trans. & Warehousing	12	97	307	32%
Information	64	287	482	60%
Prof.& Tech Svcs.	3	35	47	74%
Other Services	6	32	183	17%
Total	333	3,902	6,639	59%
Medium Industrial -- Zoning I-2				
Construction	135	1,583	1,799	88%
Manufacturing	91	1,690	2,570	66%
Wholesale Trade	8	69	123	56%
Trans. & Warehousing	20	313	404	77%
Other Services	1	6	8	75%
Total	255	3,661	4,904	75%
Heavy Industrial -- Zoning I-3				
Utilities	1	26	30	87%
Manufacturing	25	587	824	71%
Trans. & Warehousing	4	37	64	58%
Other Services	8	65	81	80%
Total	38	715	999	72%
Total				
Total	**626**	**8,278**	**12,542**	66%

Sources: InfoUSA; Maxfield Research Inc.

- Construction business operating under I1 and I2 zoning still provide a high proportion of living wage jobs. At both levels of industrial use, 88% of construction jobs are living wage jobs.

Table 1.37 shows the major industrial employers in Area II. The product or services provided by the firms and estimated employee count are displayed next to the employer name.

- The largest employers are Honeywell Laboratories and Mentor Minnesota Inc. Honeywell Laboratories employs 500 people and manufactures computers and electronics.

- Other large industrial employers include Bureau of Engraving, Walman Optical Company, and A & M Business Interior Services. Each company employs 200 employees.

TABLE 1.37
MAJOR INDUSTRIAL EMPLOYERS
AREA 2 -- NORTH AND NORTHEAST INDUSTRIAL AREA
2004

Employer	Products/Services	Estimated Employee Count
Honeywell Laboratories	Computers-Electronic-Manufacturers	500
Mentor Minnesota Inc	Physicians & Surgeons Equip & Supls-Mfrs	299
Velocity Express Inc	Delivery Service	250
Transit Team Inc	Taxicabs & Transportation Service	210
Bureau of Engraving	Printers	200
Walman Optical Co	Optical Goods-Manufacturers	200
A & M Business Interior Svc	Office Furniture & Equip-Instltn (Whol)	200
Leef Services	Mats & Matting (Wholesale)	200
Scherer Brothers Lumber Co	Millwork (Manufacturers)	200
Thiele Technologies Inc	Conveyors & Conveying Equipment-Mfrs	200

Sources: InfoUSA; Maxfield Research Inc.

Area III: Mid-City and SEMI Area

Area III captures two established industrial parks in Minneapolis: Mid-City Industrial Area and Southeast Minneapolis Industrial Area (SEMI). The area runs roughly south of 19th Avenue Northeast, west of Highway 280, north of University Avenue Southeast, and west of Harrison Street North East.

Table 1.38 presents the number of establishments, jobs, living wage jobs, and percentage of living wage jobs zoned for light (I1), medium (I2), and heavy (I3) industrial uses. Key points from Table 1.38 are shown below.

- Most establishments in the Mid-City and SEMI Area are light industrial users. Of the 461 industrial users, 254 establishments are I1 users, 177 establishments are I2 users, and 30 establishments are I3 users.

- Light industrial users employ the most workers. I1 users employ 9,040 workers, while I2 and I3 users employ 3,995 and 925 workers respectively.

- Medium and heavy industrial users in the Mid-City and SEMI Area show the highest percentage of living wage jobs. Seventy-four percent of jobs associated with I2 and 73% of jobs associated with heavy industrial use are living wage jobs. Sixty-four percent of jobs at I1 users pay a living wage.

TABLE 1.38
ESTIMATED INDUSTRIAL EMPLOYMENT AND ESTABLISHMENTS
BY ZONING CLASSIFICATION
AREA 3 -- MID-CITY AND SEMI INDUSTRIAL AREA
2004

	Establishments	Employment		
		Living-Wage Jobs	All Jobs	Pct.
Light Industrial -- Zoning I-1				
Utilities	1	45	52	87%
Construction	2	13	14	93%
Manufacturing	106	3,752	5,750	65%
Wholesale Trade	103	1,367	2,261	60%
Trans. & Warehousing	9	92	224	41%
Information	23	279	454	61%
Prof.& Tech Svcs.	7	189	250	76%
Other Services	3	7	35	20%
Total	254	5,744	9,040	64%
Medium Industrial -- Zoning I-2				
Construction	86	1,371	1,568	87%
Manufacturing	71	1,325	2,076	64%
Wholesale Trade	3	41	74	55%
Trans. & Warehousing	17	237	277	86%
Total	177	2,974	3,995	74%
Heavy Industrial -- Zoning I-3				
Manufacturing	19	602	831	72%
Trans. & Warehousing	3	8	13	62%
Other Services	8	65	81	80%
Total	30	675	925	73%
Total				
Total	**461**	**9,393**	**13,960**	67%

Sources: InfoUSA; Maxfield Research Inc.

- Manufacturing businesses provide a significant number of living wage jobs in Area II. Light manufacturing firms provide 3,752 living wage jobs. Manufacturing businesses under I2 zoning present the second largest number of living wage jobs with 1,325 jobs.

- Transportation and Warehousing businesses as light industrial users show the lowest percentage of living wage jobs. Of the 224 jobs in this industry group and zoning category, 92 jobs or 41% pay a living wage.

Table 1.39 shows the major industrial employers in Area III. The product or services provided by the firms and estimated employee count are displayed next to the employer name.

- The largest employers are Honeywell Aerospace and Techne Corporation. Honeywell Aerospace employs 2,200 people and produces search, detection, and navigation devices.

- Other large industrial employers include Northern Star Co, Hawkins Pharmaceutical Group, and AmeriPride Linen and Apparel. Each company employs 300 employees.

TABLE 1.39
MAJOR INDUSTRIAL EMPLOYERS
AREA 3 -- MID CITY AND SEMI INDUSTRIAL AREA
2004

Employer	Products/Services	Estimated Employee Count
Honeywell Aerospace	Search Detection/Nav Systs/Instr (Mfrs)	2200
Techne Corp	Biological Products (Manufacturers)	520
Northern Star Co	Dried/Dehydrated Fruits Vegetables (Mfr)	300
Hawkins Pharmaceutical Group	Drug Millers	300
Ameri Pride Linen & Apparel	Clean Rooms-Installation & Equipment	300
Mackay Envelope Corp	Stationery-Wholesale	250
Prospect Foundry Inc	Gray & Ductile Iron Foundries	225
Diversified Graphics Inc	Books-Publishing & Printing	220
Pace Analytical Svc Inc	Environmental & Ecological Services	218
Home Depot	Home Improvements	210

Sources: InfoUSA; Maxfield Research Inc.

Study Area IV: Hiawatha Corridor Area

Area IV, or the Hiawatha Industrial Corridor, encompasses long-standing industrial users along Hiawatha Avenue as well as the industrial parcels further east, such as the Seward Industrial Park. The area runs roughly south of Interstate 35W, west of 35th Avenue South, north of Minnehaha Parkway East, and west of Bloomington Avenue South.

Table 1.40 presents the number of establishments, jobs, living wage jobs, and percentage of living wage jobs zoned for light (I1), medium (I2), and heavy (I3) industrial uses. Key points from Table 1.40 are shown below.

- Like the areas before, most establishments in Area 4 are light industrial users. Of the 300 industrial users, 147 establishments are I1 users. However, a comparable number of establishments -134- are I2 users. 19 establishments are I3 users.

- Medium industrial users employ the most workers. I2 users employ 2,411 workers. I1 and I3 users employ 2,108 and 390 workers respectively.

- Medium and heavy industrial users in the Hiawatha Corridor Area show the highest percentage of living wage jobs. Seventy-nine percent of jobs associated with I2 and 75% of jobs associated with heavy industrial use are living wage jobs. The number of living wage jobs

associated with I1 use is the lowest among all four areas. Only 55% of jobs at I1 users pay a living wage.

TABLE 1.40
ESTIMATED INDUSTRIAL EMPLOYMENT AND ESTABLISHMENTS
BY ZONING CLASSIFICATION
AREA 4 -- HIAWATHA CORRIDOR INDUSTRIAL AREA
2004

	Establishments	Employment		
		Living-Wage Jobs	All Jobs	Pct.
Light Industrial -- Zoning I-1				
Utilities	2	31	36	86%
Construction	7	63	69	91%
Manufacturing	40	429	830	52%
Wholesale Trade	56	436	709	61%
Trans. & Warehousing	13	100	284	35%
Information	15	47	72	65%
Real Estate, Rental, Leasing	4	11	13	85%
Other Services	10	45	95	47%
Total	147	1,162	2,108	55%
Medium Industrial -- Zoning I-2				
Construction	91	1,167	1,314	89%
Manufacturing	36	604	912	66%
Wholesale Trade	1	9	16	56%
Trans. & Warehousing	5	59	74	80%
Other Services	1	73	95	77%
Total	134	1,912	2,411	79%
Heavy Industrial -- Zoning I-3				
Manufacturing	16	285	383	74%
Other Services	3	6	7	86%
Total	19	291	390	75%
Total				
Total	**300**	**3,365**	**4,909**	69%

Sources: InfoUSA; Maxfield Research Inc.

- Like Area I, construction firms provide a largest number of living wage jobs in Area IV. Construction businesses operating under I2 use provide 1,167 living wage jobs. Manufacturing firms associated with I2 use present the second largest number of living wage jobs with 604 jobs.

- Transportation and Warehousing businesses as light industrial users again show the lowest percentage of living wage jobs. Of the 284 jobs in this industry group and land use category, 100 jobs or 35% pay a living wage.

Table 30 shows the major industrial employers in Area IV. The product or services provided by the firms and estimated employee count are displayed next to the employer name.

- Hauenstein & Burmeister Inc. and Allweather Roof Co. are the largest employers. Hauenstein & Burmeister Inc employs 175 people. The company sells and services elevators.

- Other large industrial employers include Graybar Electric Co., Boker's Inc., and Premier Limo and Transportation. Each company employs 140, 132, and 125 employees, respectively.

TABLE 1.41
MAJOR INDUSTRIAL EMPLOYERS
AREA 4 -- HIAWATHA CORRIDOR INDUSTRIAL AREA
2004

Employer	Products/Services	Estimated Employee Count
Hauenstein & Burmeister Inc	Elevators-Sales & Service-Manufacturers	175
Allweather Roof Co	Roofing Contractors	150
Graybar Electric Co	Electric Equipment-Manufacturers	140
Boker's Inc	Bolts Nuts Screws Rivets/Washers (Mfrs)	132
Premier Limo & Transportation	Airport Transportation Service	125
John A Dalsin & Son Inc	Sheet Metal Work Contractors	120
Garlock-French Roofing	Chimney Builders & Repairers	120
Smyth Co Inc	Labels-Paper (Manufacturers)	100
Mc Guire & Sons Plumbing & Htg	Plumbing Contractors	100
Envirobate	Asbestos Removal Service	95

Sources: InfoUSA; Maxfield Research Inc.

Resident Employment and Commute Patterns

Table 1.42 shows commute patterns for workers who live or work in Minneapolis in 2000. The data is from the U.S. Census. Maxfield Research adjusted the numbers to match employment and labor force estimates from the Minnesota Department of Employment and Economic Development.

Commute-shed data by industry or occupation is difficult to obtain. Non-disclosure rules hamper the development of summary statistics from Census commute-shed data. In place of summary figures, mapping commute-shed Census data for each analysis area presents a picture of whether industrial users hire local residents. Commercial and residential uses also exist on area parcels, so some workers in each analysis area are employed by non-industrial businesses. Key points from Table 1.42 follow.

TABLE 1.42
COMMUTE PATTERNS IN MINNEAPOLIS
2000

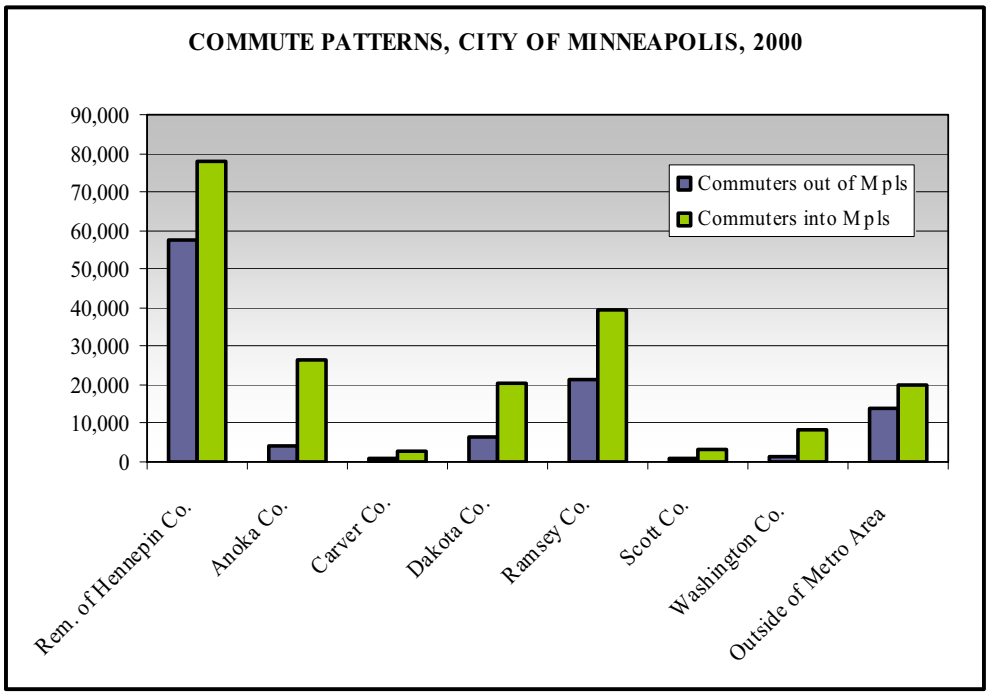
Where Minneapolis Labor Force Works	Number	Percent
City of Minneapolis	110,702	51%
Remainder of Hennepin County	57,377	26%
Anoka County	4,367	2%
Carver County	885	0%
Dakota County	6,395	3%
Ramsey County	21,351	10%
Scott County	1,117	1%
Washington County	1,232	1%
Outside of Metropolitan Area	13,989	6%
Total	217,415	100%

Where Minneapolis Employees Reside	Number	Percent
City of Minneapolis	110,702	36%
Remainder of Hennepin County	78,087	25%
Anoka County	26,456	9%
Carver County	2,967	1%
Dakota County	20,245	7%
Ramsey County	39,485	13%
Scott County	3,313	1%
Washington County	8,328	3%
Outside of Metropolitan Area	19,769	6%
Total	309,352	100%

Sources: US Census Bureau; Minnesota Department of Employment and Economic Development; Maxfield Research Inc.

- About one in two residents works in the City. According to Census commute-shed data, over 111,000 people live and work in Minneapolis, making up 51% of the labor force. This statistic is partially explained by Minneapolis' position as a metro employment center. The number of people working in Minneapolis is simply larger than Minneapolis' population.

- Employees in Minneapolis come from around the Metro Area. Only about one in three workers (36%) lives in the City. About one in four workers live in the remainder of Hennepin County. Thirteen percent commute from Ramsey County; 9% from Anoka County; and 7% commute from Dakota County.



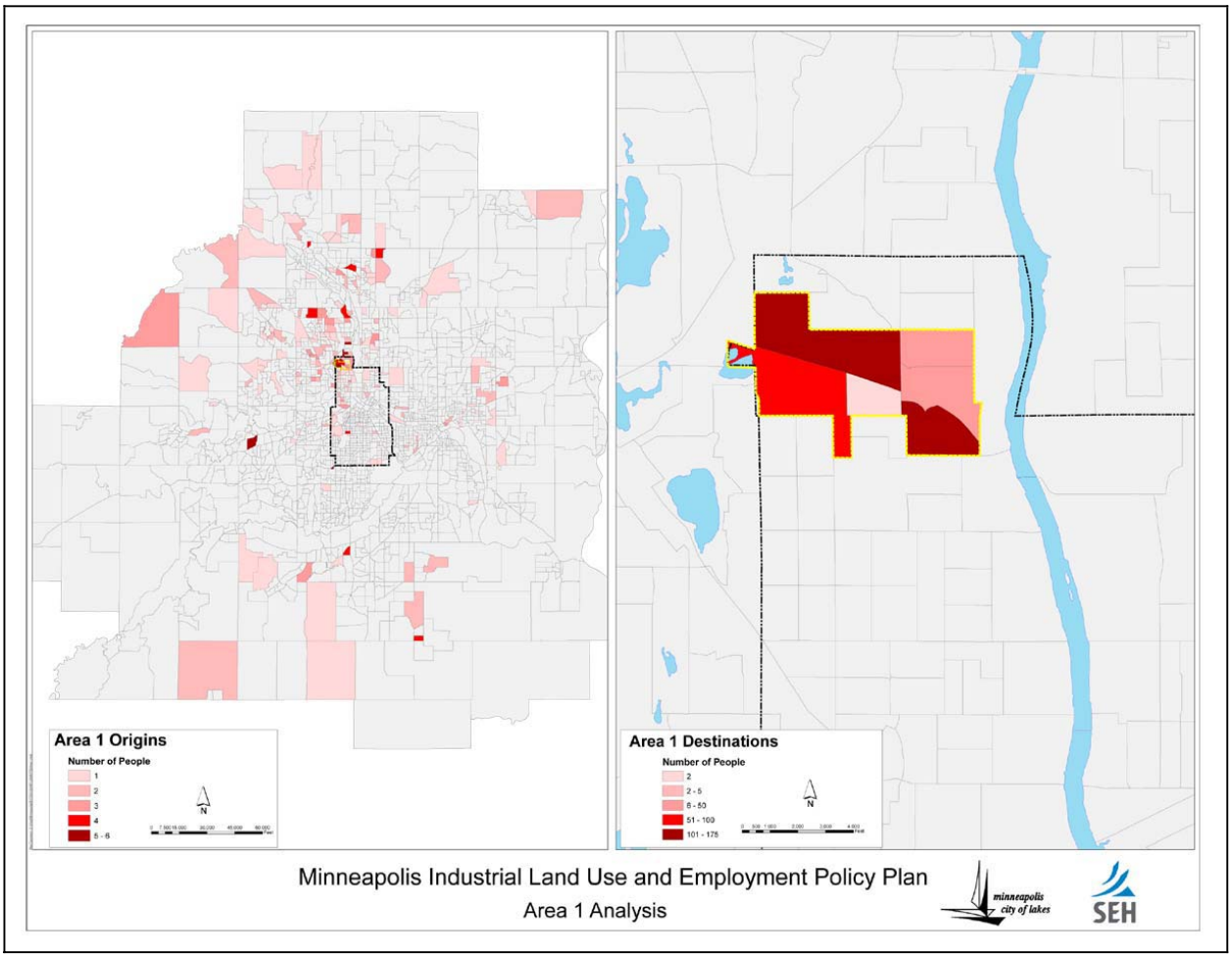
The following pages display commuter-shed maps and key findings for the four primary analysis areas.

Area I – Humboldt

- The map below shows that a high density of Minneapolis residents works in Area I - Humboldt. Looking at the left-hand side –the origins map- a darker red color indicates a higher density of people originate from that location.

- The origins map shows a focal density of workers living in the analysis area. In addition, the neighborhoods immediately surrounding it show a pink hue, indicating 1-3 workers live in the area.

- The right-hand side –the destinations map- shows the northwestern and southwestern quadrants have the highest job density.

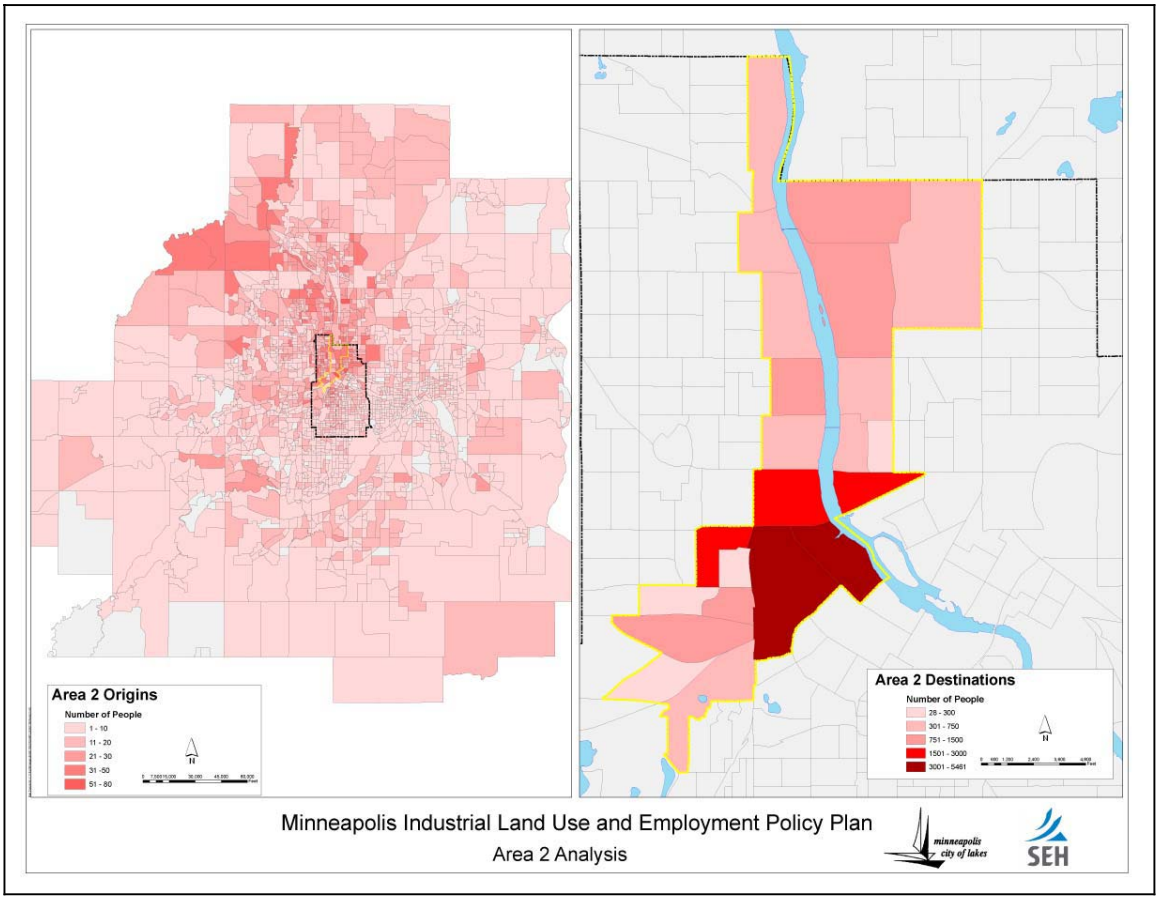


Area II – Near North/Upper River

- A high density of residents lives and works in Area II and adjacent north and northeast neighborhoods. The red shading indicates the density of Area II workers that live in a geographic location. Darker shades of red indicate that 31-50 and 51-80 people reside in the corresponding census tract and work in Area II.

- The map below indicates that Area II is a major regional employment center. Workers come from throughout the Metro Area. People who work in Area II are choosing to live in Minneapolis, St. Paul, and the suburbs. A noticeable portion of Area II workers live in the northwest metro suburbs, again where land prices are more affordable.

- The portions of Area II in the Central Business District show the highest job density, although the North Washington Jobs Park also displays the second highest job density.



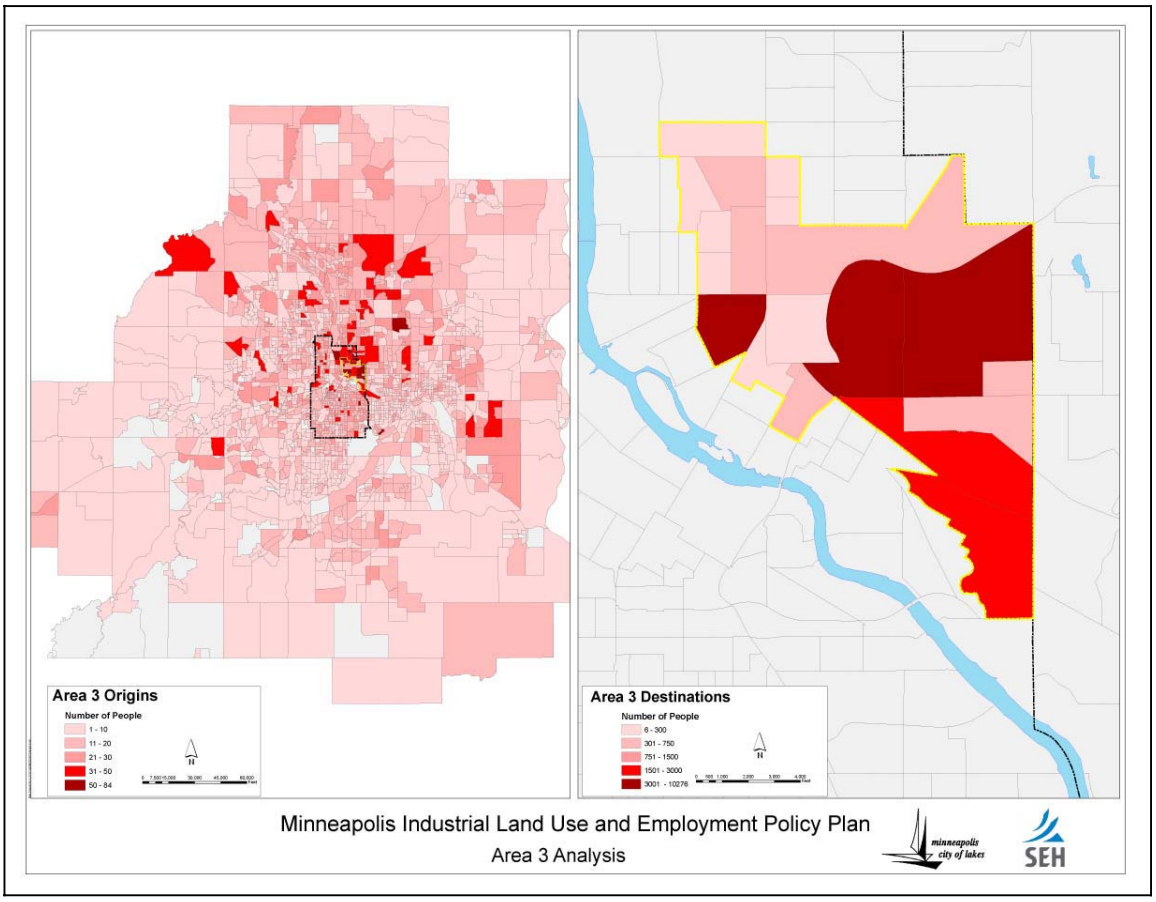
Area III - SEMI & Mid-City

- The analysis area itself, northeast, and southeast Minneapolis neighborhoods all have a high density of residents that work in Area III. Census tracts nearby show ranges of 31-50 and 50-84 workers.

- Area III is also a significant regional employment center. Workers come from all over the Metro Area. The red shading in the map below is spread across Minneapolis, St. Paul, and the immediate suburbs.

- Likely due to the higher-income occupations in SEMI, Census tracts in more expensive suburbs east of St. Paul and in the southwest metro have 31-50 workers residing there.

- The highest job density within Area III is Mid-City and the area southwest of the intersection between Broadway and Central Avenues.

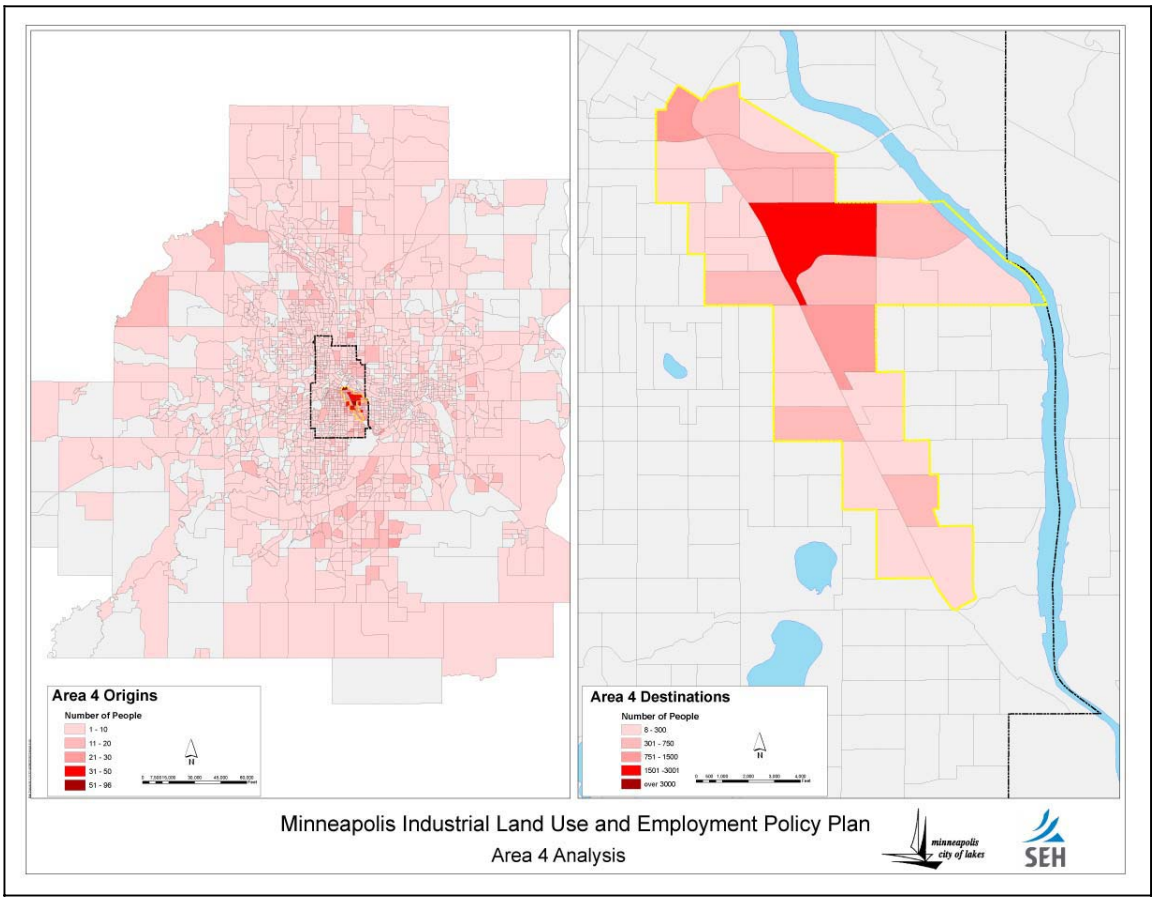


Area IV – Hiawatha/Midtown Corridor

- Area IV shows a considerable concentration of workers who live in the analysis area or nearby Minneapolis neighborhoods. Census tracts in the immediate neighborhoods -such as Corcoran, Longfellow, and Seward- show 31-50 and 51-96 workers also live there. Our commute-shed analysis only considers the Hiawatha Corridor, and does not examine the Midtown Corridor.

- Area IV is a regional employment center like the other analysis areas. Workers are dispersed throughout the metro area.

- The highest concentration of workers is in the Seward Industrial Park area northeast of Lake Street and east Highway 55.



Introduction

With the assistance of the Minneapolis Assessors Office and the Minneapolis GIS Business Services Office, the study team put together a database of industrial properties and industrial buildings in Minneapolis. The database includes information on parcel characteristics, building characteristics, and zoning for the property. The ultimate purpose of the database is to provide CPED with a tool to do long-term industrial land-use and employment planning. The following analysis provides a summary of the data in the industrial database.

Employment and Land Use

The number of employees per acre is a key metric in understanding how industrial land use provides benefits to the City. Industries with relatively higher numbers of employees per acre provide higher benefits than those with lower employment densities, if all other factors (wage, education levels, real estate market, etc.) are equal. These estimates are also used in determining demand for industrial land (page 98) and with the "Industrial Scorecard" (page 195).

While this information is important, it is difficult to estimate. In order to make these estimates, Maxfield Research Inc. matched as many employer records from the InfoUSA data to parcel data from the Minneapolis Assessors office. These matched records were then analyzed by industry. Because there were many gaps in the matched records, we compare and adjust the results based on four employment density studies conducted in Washington State, Portland, Southern California, and Rhode Island. Employment densities are only estimated for industrial businesses, as this was the only data obtained from InfoUSA.

Table 2.1 shows the estimated number of employees per acre in industrially zoned industries. The data is organized by industry and shows the estimates based on the InfoUSA data, along with other regional studies and the final estimate. Key points follow.

- For all industrial employers, the average number of employees per acre is 34.

- Information and Professional and Technical Services have the highest employment density, estimated at 60 workers per acre. Transportation and Warehousing has the lowest employment density at about 15 workers per acre.

- Employment densities vary across studies. Factors that can effect these estimates are average building sizes, average number of stories, floor area ratios (land densities), and specific employers within industries.

TABLE 2.1
ESTIMATED EMPLOYMENT PER ACRE
INDUSTRIAL ZONED INDUSTRIES

	Assessor/ InfoUSA Data Mpls[1]	Puget Sound Study[2]		Portland Study[3]	So. California Study[4]	Rhode Island Study	Final Estimate Mpls
		Round 1	Round 2				
Utilities	42	28	22	35	20	30	40
Construction	30	32	36	27	18	5	30
Manufacturing	27	27	30	23	15	20	30
Wholesale Trade	20	27	33	11	17	6	20
Trans. & Wharehousing	14	28	22	5	20	10	15
Information	64	28	22	35	20	40	60
Real Estate, Rental, Leasing	7	26	28	43	33	125	20
Prof. & Tech Svcs.	64	27	26	21	33	62	60
Other Services	50	27	26	21	25	62	50
All Industries	**34**						**34**

1. Because of small sample sizes and large outliers, median values are used. Industries do not match exactly; all other studies used SIC coded industries, where this data is NAICS industry coded.
2. Published as square foot per employee; adjusted to employee per acre by Maxfield Research Inc.
3. Published as building square foot per employee; adjusted to employee per acre by Maxfield Research Inc. based on published FARs.
4. Published by land use type; adjusted by Maxfield Research Inc., based on published tables showing land use by industry.

Sources: Pflum; Yee and Bradford; Natelson Company Inc.; Rhode Island Statewide Planning Program; Maxfield Research Inc.

Industrial Zoned versus Industrial Use

This analysis examines industrial land in Minneapolis, which can be classified according to zoning status or use status.

- **Industrial zoning** refers to the land use regulated by the City's zoning code. Under that code, the City has primary districts and overlay districts. For purposes of this analysis, primary industrial districts for light (I1), medium (I2), and general (I3) industrial districts are examined. (A more detailed discussion of the zoning code can be found on page 149.)

- **Industrial use** is applied by the City Assessor for property tax purposes. Because the State's property tax system applies different effective tax rates for property based on use, this classification is used to determine the amount of property tax a given parcel should pay.

Parcel Characteristics

Table 2.2 shows the parcel characteristics for industrial parcels in Minneapolis along with the areas of analysis. This data shows how the City's industrial land is distributed by use across the areas examined. Key points from the table follow.

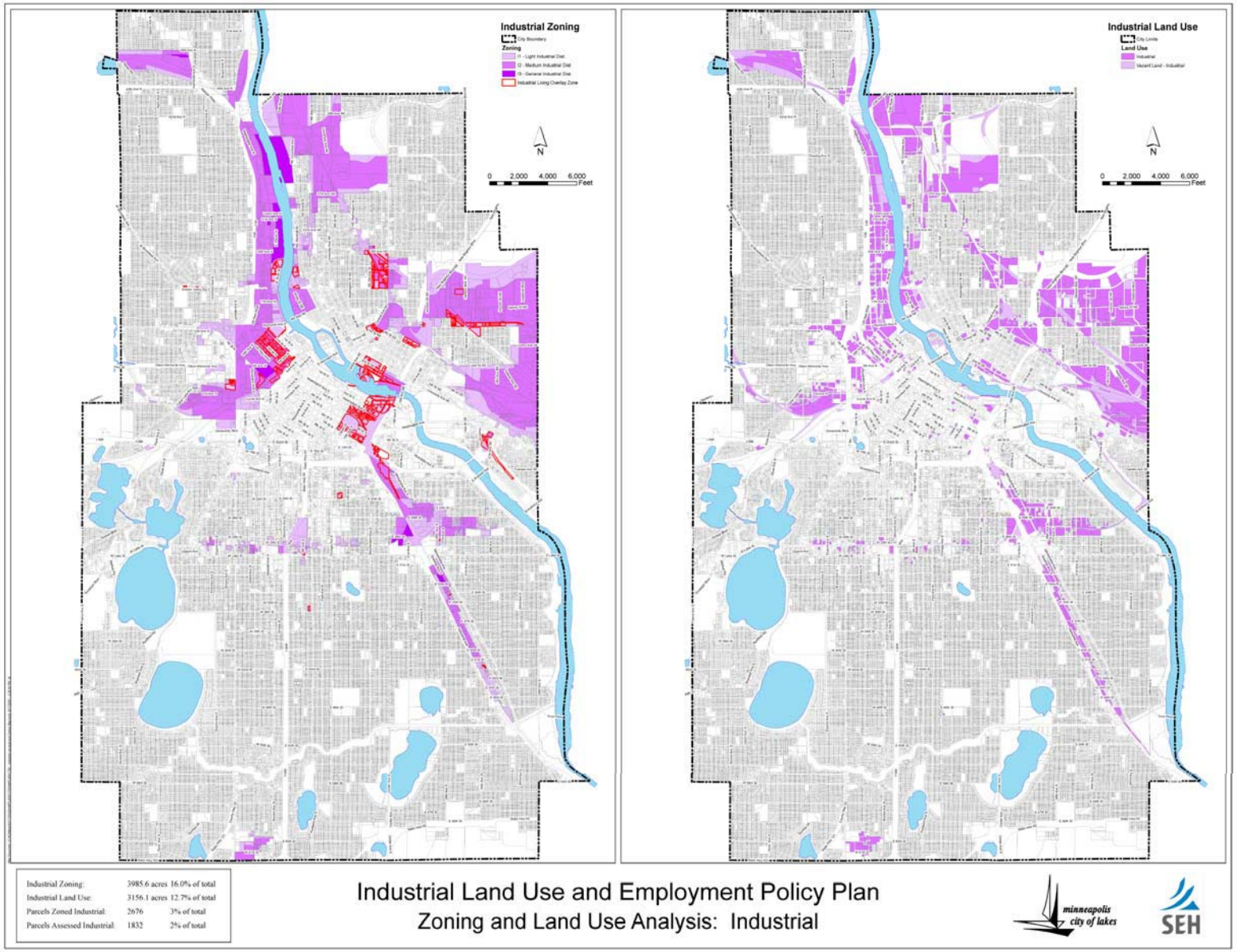

Industrial Zoning
Industrial Land Use
N
0 2,000 4,000 6,000 Feet
Industrial Zoning: 3985.6 acres 16.0% of total
Industrial Land Use: 3156.1 acres 12.7% of total
Parcels Zoned Industrial: 2676 3% of total
Parcels Assessed Industrial: 1832 2% of total
Industrial Land Use and Employment Policy Plan
Zoning and Land Use Analysis: Industrial
minneapolis city of lakes
SEH

TABLE 2.2
PARCEL CHARACTERISTICS
INDUSTRIAL ZONED PARCELS
CITY OF MINNEAPOLIS & AREAS OF ANALYSIS

Industrial Zoned Parcels	Number of Parcels	Average Acreage of Parcel	Total Acreage	Percent of Total
City of Minneapolis	**2,669**	**1.49**	**3,984**	100%
Industrial Use	1,038	2.27	2,352	59%
Commercial Use	327	1.79	584	15%
Residential Use	252	0.22	55	1%
Vacant Land -- Industrial	591	1.07	631	16%
Vacant Land -- Commercial	443	0.80	356	9%
Vacant Land -- Residential	18	0.22	4	0%
I - Humboldt	**67**	**3.10**	**207**	100%
Industrial Use	24	5.28	127	61%
Commercial Use	5	0.38	2	1%
Vacant Land -- Industrial	32	2.39	76	37%
Vacant Land -- Commercial	6	0.38	2	1%
II - Near North/Upper River	**968**	**1.71**	**1,652**	100%
Industrial Use	372	2.54	946	57%
Commercial Use	119	2.16	257	16%
Residential Use	73	0.27	20	1%
Vacant Land -- Industrial	211	1.01	214	13%
Vacant Land -- Commercial	189	1.13	213	13%
Vacant Land -- Residential	4	0.52	2	0%
III - Mid-City and SEMI	**491**	**2.43**	**1,192**	100%
Industrial Use	252	3.33	839	70%
Commercial Use	41	2.82	115	10%
Residential Use	8	0.17	1	0%
Vacant Land -- Industrial	157	1.36	214	18%
Vacant Land -- Commercial	30	0.73	22	2%
Vacant Land -- Residential	3	0.09	0	0%
IV - Hiawatha/Midtown Corridor	**682**	**0.66**	**451**	100%
Industrial Use	236	1.00	237	53%
Commercial Use	77	0.95	73	16%
Residential Use	137	0.16	22	5%
Vacant Land -- Industrial	114	0.53	61	14%
Vacant Land -- Commercial	108	0.53	57	13%
Vacant Land -- Residential	10	0.14	1	0%
Outside Analysis Areas	**461**	**1.04**	**480**	100%
Industrial Use	154	1.32	203	42%
Commercial Use	85	1.61	137	28%
Residential Use	34	0.35	12	2%
Vacant Land -- Industrial	77	0.86	66	14%
Vacant Land -- Commercial	110	0.56	62	13%
Vacant Land -- Residential	1	0.12	0	0%

Sources: Minneapolis Assessors Office; Maxfield Research Inc.

- Industrial use parcels make up slightly less than 60% of the acreage of all industrial zoned parcels in Minneapolis. About 16% of the acreage is vacant and 15% has a commercial use.

- The average industrial zoned parcel is about 1.5 acres in Minneapolis. For those parcels where the use is industrial, the average is about 2.3 acres. Area I has the highest average acreage for industrial use parcels at 5.3 acres and Area IV has the lowest average acreage for industrial use parcels at 1.0 acres.

Building Size

Table 2.3 shows the building characteristics for industrial areas in Minneapolis. Building characteristics include the number of built parcels, number of buildings, average size per building, total building area, and percent of building area by use. Key points follow.

- In 2004, there were 1,653 buildings on industrial zoned property. Of those 1,075 (65%) were industrial use buildings and 578 (35%) were buildings with residential and commercial uses.

- The average building size for an industrial use building is 40,424 square feet. Area III has the largest average industrial use building size at 54,862 square feet and Area IV has the smallest average building size for industrial use at 22,923 square feet.

Floor Area Ratios

Table 2.4 shows the floor area ratios for Minneapolis as a whole and for the areas of analysis by use. Floor area ratio is defined as the building size divided by the parcel size. (For example, a parcel with a floor ratio of 1.0 could have a single-story building that covers the whole size of the lot, or it could be a two-story building covering half the lot.) This data is helpful in determining land use density in the specific areas. Key points from the table follow.

- The average floor area ratio for parcels with industrial use is 0.70. For commercial use, the average floor area ratio is 0.98, and, for residential use, the average floor area ratio is 0.35.

- The highest average floor area ratio for industrial use parcels is found in industrial zoned areas outside the areas of analysis, which, because many of these parcels are located in the Warehouse district and Downtown, have more multi-story industrial buildings. The lowest average floor area ratio is found in Area I.

TABLE 2.3
BUILDING SUMMARY
INDUSTRIAL ZONED PARCELS
CITY OF MINNEAPOLIS & AREAS OF ANALYSIS

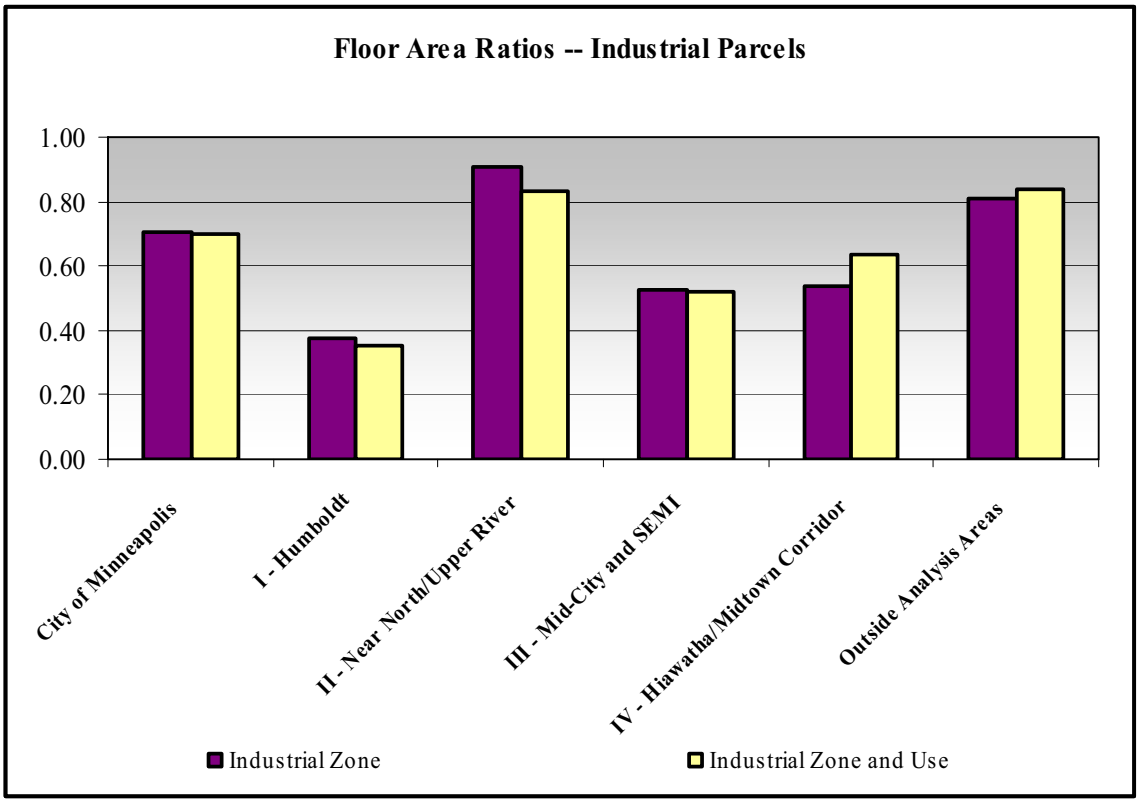
Industrial Zoned Parcels	Number of Parcels with Buildings	Number of Buildings	Average Size per Building (SF)	Average Building Area per Parcel (SF)	Total Bulding Area (SF)	Percent of Total Building Area
City of Minneapolis	**1,528**	**1,653**	**35,904**	**38,875**	**59,400,836**	
Industrial Use	995	1,075	40,424	43,726	43,507,646	73%
Commercial Use	298	335	44,433	49,950	14,885,209	25%
Residential Use	235	243	4,148	4,289	1,007,981	2%
I - Humboldt	**29**	**31**	**35,156**	**37,581**	**1,089,847**	
Industrial Use	24	26	40,230	43,582	1,045,975	96%
Commercial Use	5	5	8,774	8,774	43,872	4%
II - Near North/Upper River	**518**	**552**	**39,847**	**42,561**	**22,046,734**	
Industrial Use	350	371	40,411	42,982	15,043,744	68%
Commercial Use	102	112	59,705	65,559	6,686,994	30%
Residential Use	66	69	4,580	4,788	315,996	1%
III - Mid-City and SEMI	**288**	**322**	**52,768**	**58,998**	**16,991,353**	
Industrial Use	242	269	54,862	60,983	14,757,980	87%
Commercial Use	38	45	49,348	58,438	2,220,647	13%
Residential Use	8	8	1,591	1,591	12,726	0%
IV - Hiawatha/ Midtown Corridor	**434**	**461**	**18,382**	**19,526**	**8,474,122**	
Industrial Use	230	246	22,923	24,518	5,639,154	67%
Commercial Use	73	84	30,785	35,424	2,585,974	31%
Residential Use	131	131	1,901	1,901	248,994	3%
Outside Analysis Areas	**259**	**287**	**37,626**	**41,694**	**10,798,780**	
Industrial Use	149	163	43,072	47,119	7,020,793	65%
Commercial Use	80	89	37,615	41,847	3,347,722	31%
Residential Use	30	35	12,293	14,342	430,265	4%

Sources: Minneapolis Assessors Office;
Maxfield Research Inc.

TABLE 2.4
FLOOR AREA RATIOS
INDUSTRIAL ZONED PARCELS
CITY OF MINNEAPOLIS & AREAS OF ANALYSIS

Industrial Zoned Parcels	Number of Parcels	Floor Area Ratio (FAR)
City of Minneapolis	**1,528**	**0.70**
Industrial Use	995	0.70
Commercial Use	298	0.98
Residential Use	235	0.35
I - Humboldt	**29**	**0.38**
Industrial Use	24	0.35
Commercial Use	5	0.49
II - Near North/Upper River	**518**	**0.91**
Industrial Use	350	0.83
Commercial Use	102	1.43
Residential Use	66	0.49
III - Mid-City and SEMI	**288**	**0.52**
Industrial Use	242	0.52
Commercial Use	38	0.61
Residential Use	8	0.23
IV - Hiawatha/Midtown Corridor	**434**	**0.54**
Industrial Use	230	0.64
Commercial Use	73	0.72
Residential Use	131	0.25
Outside Analysis Areas	**259**	**0.81**
Industrial Use	149	0.84
Commercial Use	80	0.86
Residential Use	30	0.53

Sources: Minneapolis Assessors Office;
Maxfield Research Inc.



Assessed Market Value

Table 2.5 on the following page shows the average market value per square foot for the industrial land and buildings in Minneapolis as a whole and the areas of analysis. The square footage and market value data are from the Minneapolis Assessors Office. Key points follow.

- The average land value for industrial use and industrial zone parcels is $3.80 per square foot, while the average building value is $26.52 per square foot.

- Commercial use parcels have the highest average land value per square foot. Residential use parcels have the highest building value per square foot.

TABLE 2.5
ASSESSOR'S MARKET VALUE
INDUSTRIAL ZONED PARCELS
CITY OF MINNEAPOLIS & AREAS OF ANALYSIS

Industrial Zoned Parcels	Avg. Land Market Value (Per SF of Land)	Avg. Building Market Value (Per SF of Building)
City of Minneapolis	**$4.30**	**$39.90**
Industrial Use	$3.80	$26.52
Commercial Use	$7.11	$40.77
Residential Use	$3.33	$91.69
I - Humboldt	**$2.85**	**$22.57**
Industrial Use	$2.58	$19.87
Commercial Use	$4.03	$34.45
II - Near North/Upper River	**$4.17**	**$34.14**
Industrial Use	$3.90	$26.42
Commercial Use	$6.78	$37.48
Residential Use	$2.30	$68.06
III - Mid-City and SEMI	**$4.27**	**$30.13**
Industrial Use	$3.94	$24.61
Commercial Use	$6.10	$50.65
Residential Use	$4.95	$95.41
IV - Hiawatha/ Midtown Corridor	**$3.55**	**$57.02**
Industrial Use	$3.38	$31.07
Commercial Use	$5.22	$46.67
Residential Use	$3.02	$105.39
Outside Analysis Areas	**$6.19**	**$33.66**
Industrial Use	$4.21	$23.63
Commercial Use	$10.34	$33.21
Residential Use	$6.39	$80.94

Sources: Minneapolis Assessors Office; Maxfield Research Inc.

Average Building Age

Table 2.6 shows the average age of industrial buildings in Minneapolis and the areas of analysis. Building age is important in determining the value of the building, and also may serve as proxy for whether or not a building can adequately serve industrial uses. Many older buildings have lower ceiling heights and are multi-story – features that industrial users find less attractive. Key points from the table follow.

- The average age of buildings in industrial zoned parcels is about 59 years old. For parcels with industrial use, the average age is about 52 years old. In comparison, an analysis of current industrial listings in the Metro Area shows that the average age of these buildings is about 28 years old.

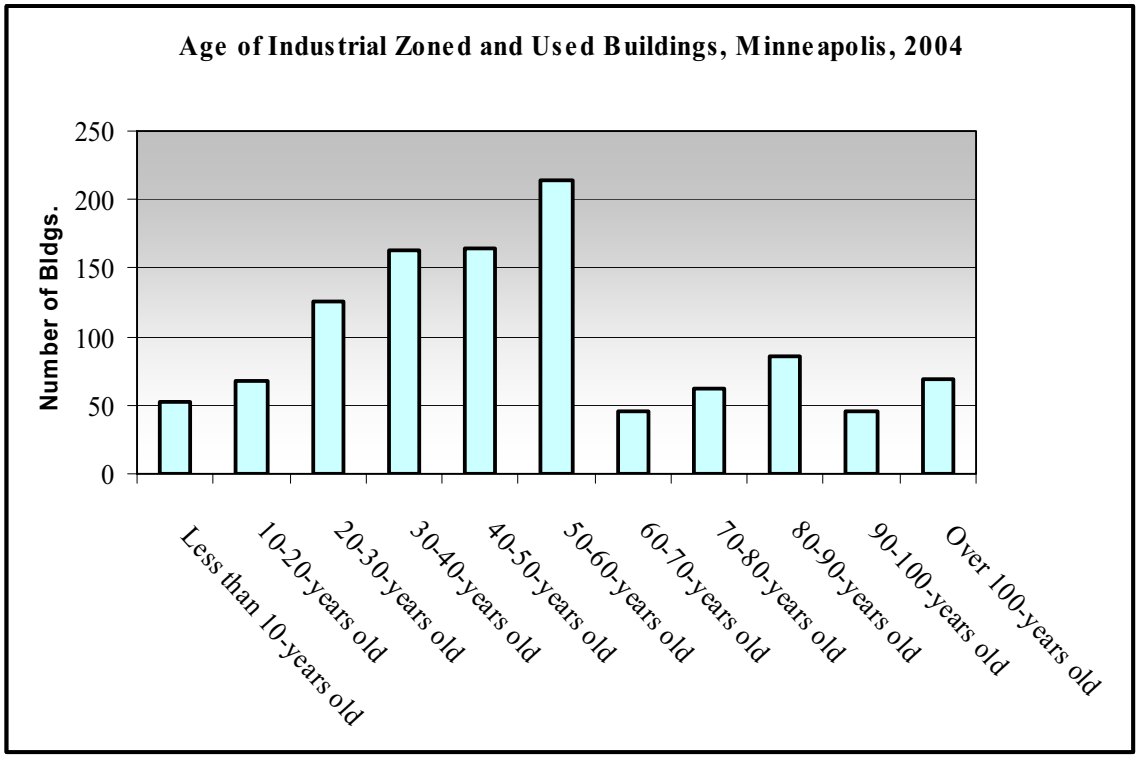
- The average age of industrial use buildings is fairly consistent across the areas of analysis, with averages between 48.8- and 51.6-years old.

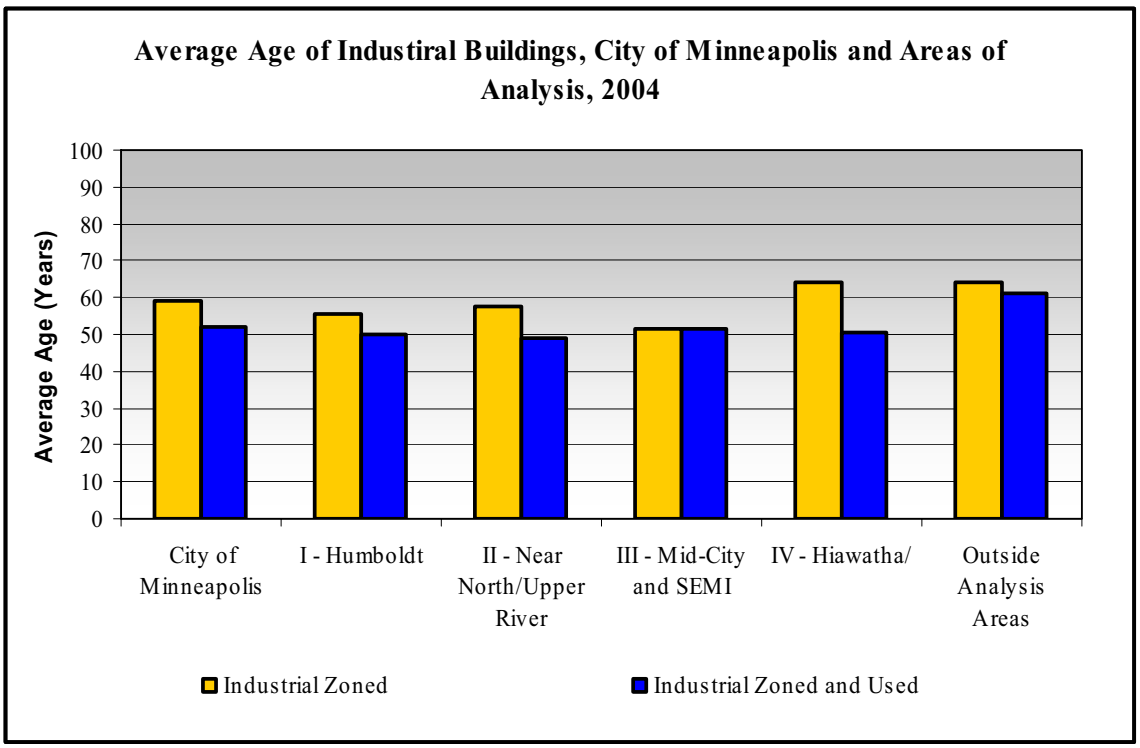
- The chart that follows shows the distribution of building ages. The chart shows that most of the City's industrial building stock was built between 20 and 60 years ago.

TABLE 2.6
AVERAGE BUILDING AGE
INDUSTRIAL ZONED PARCELS
CITY OF MINNEAPOLIS & AREAS OF ANALYSIS

Industrial Zoned Buildings	Avg. Age of Builidngs (Years)
City of Minneapolis	**59.2**
Industrial Use	51.8
Commercial Use	56.8
Residential Use	95.0
I - Humboldt	**55.3**
Industrial Use	50.0
Commercial Use	73.0
II - Near North/Upper River	**57.3**
Industrial Use	48.8
Commercial Use	60.7
Residential Use	96.3
III - Mid-City and SEMI	**51.3**
Industrial Use	51.6
Commercial Use	41.6
Residential Use	96.6
IV - Hiawatha/ Midtown Corridor	**64.3**
Industrial Use	50.6
Commercial Use	54.1
Residential Use	96.6
Outside Analysis Areas	**64.3**
Industrial Use	61.2
Commercial Use	60.8
Residential Use	86.5

Sources: Maxfield Research Inc.


Age of Industrial Zoned and Used Buildings, Minneapolis, 2004
Number of Bldgs.
250
200
150
100
50
0
Less than 10-years old
10-20-years old
20-30-years old
30-40-years old
40-50-years old
50-60-years old
60-70-years old
70-80-years old
80-90-years old
90-100-years old
Over 100-years old


Average Age of Industiral Buildings, City of Minneapolis and Areas of Analysis, 2004
Average Age (Years)
100
90
80
70
60
50
40
30
20
10
0
City of Minneapolis
I - Humboldt
II - Near North/Upper River
III - Mid-City and SEMI
IV - Hiawatha/
Outside Analysis Areas
Industrial Zoned
Industrial Zoned and Used

Minneapolis' Publicly Owned Land

Maxfield Research analyzed the total amount of industrially zoned land that is publicly owned and, as a result, does not contribute property tax. (The small portion of public land that has a non-public use and contributes tax is not included in this analysis.) The data is shown in Table 2.7. About 7% of industrial zoned land in Minneapolis is owned by public entities.

The largest owner is the City, with 127 acres. The University of Minnesota also owns a significant portion at 84 acres. Of the publicly owned land, about 57% is used industrially and 42% is used commercially.

TABLE 2.7
AMOUNT OF PUBLICLY OWNED INDUSTRIAL ZONED LAND
CITY WIDE & STUDY AREA
CITY OF MINNEAPOLIS
2004

	City-Wide		Humboldt (I)	Upper River (II)	SEMI/ Mid-City (III)	Hiawatha (IV)	Outside Study Areas
Public Entity	**Acres**	**%**	Acres	Acres	Acres	Acres	Acres
City	127	3.2%	0	86	2	25	13
Schools	8	0.2%	0	4	0	0	4
Parks	4	0.1%	0	4	0	0	0
County	14	0.4%	0	14	0	0	0
Met Council	15	0.4%	0	13	0	2	0
State	13	0.3%	0	12	0	0	1
Federal	8	0.2%	0	0	0	0	8
University	84	2.1%	0	0	77	0	7
Total	273	6.9%	0	134	79	26	34
All Industrial-Zoned Parcels	3,984	100%					

Source: Maxfield Research Inc.

Infrastructure Analysis

Without adequate infrastructure – roads, transit, under- and above-ground utilities, etc. – Minneapolis will be unable to meet the changing needs of industrial users. An assessment of Minneapolis' infrastructure capacity shows that, while some of the City's systems may be aging and there are some areas with gaps, in fact, infrastructure is adequate to support industrial uses throughout most of the City. This conclusion is based upon an analysis of available roadway, sanitary, water, storm and telecommunications systems as well as interviews with current and former Minneapolis Public Works employees.

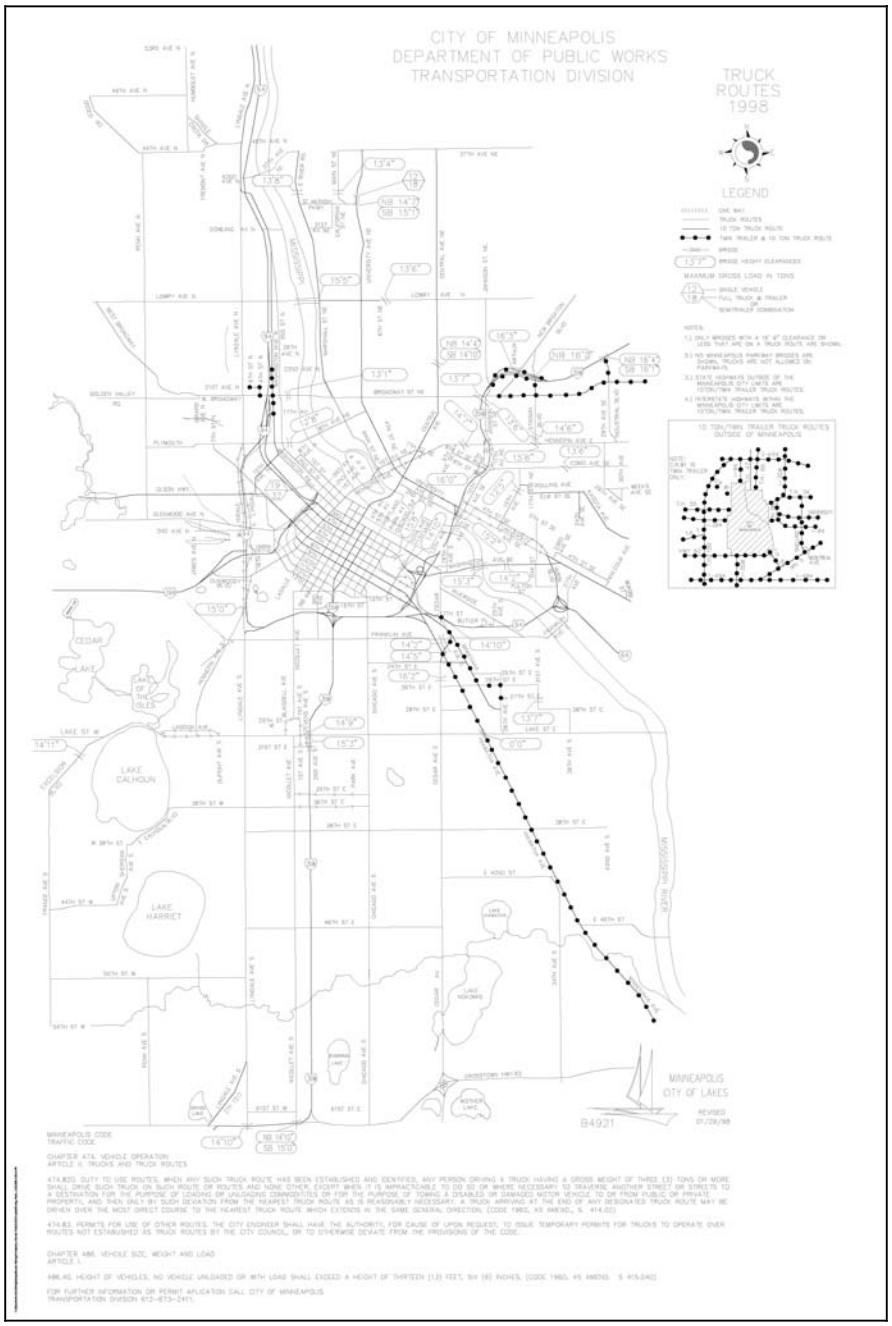
The following is a more detailed explanation of each system and its ability to support industrial uses.

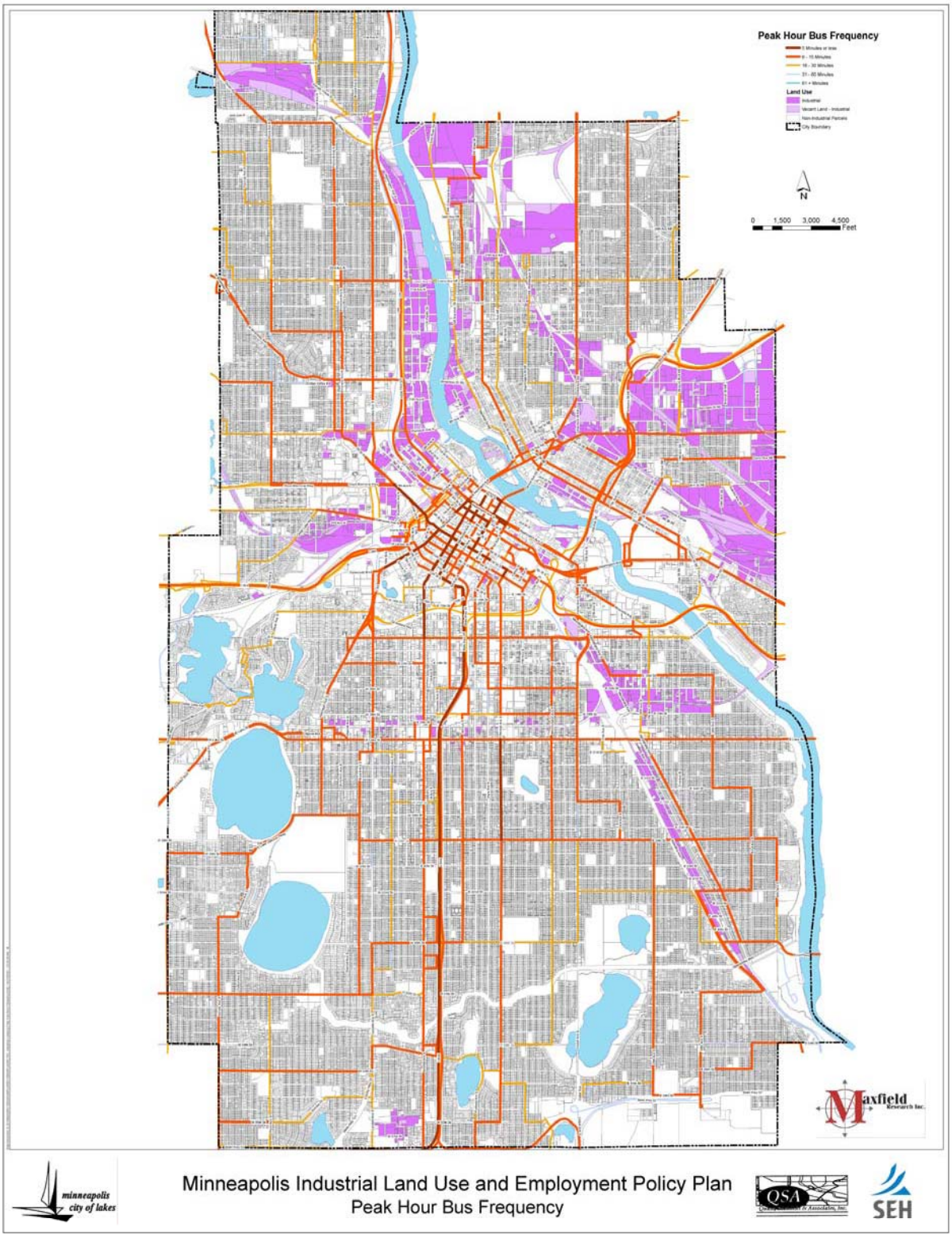
Transit and Transportation Systems

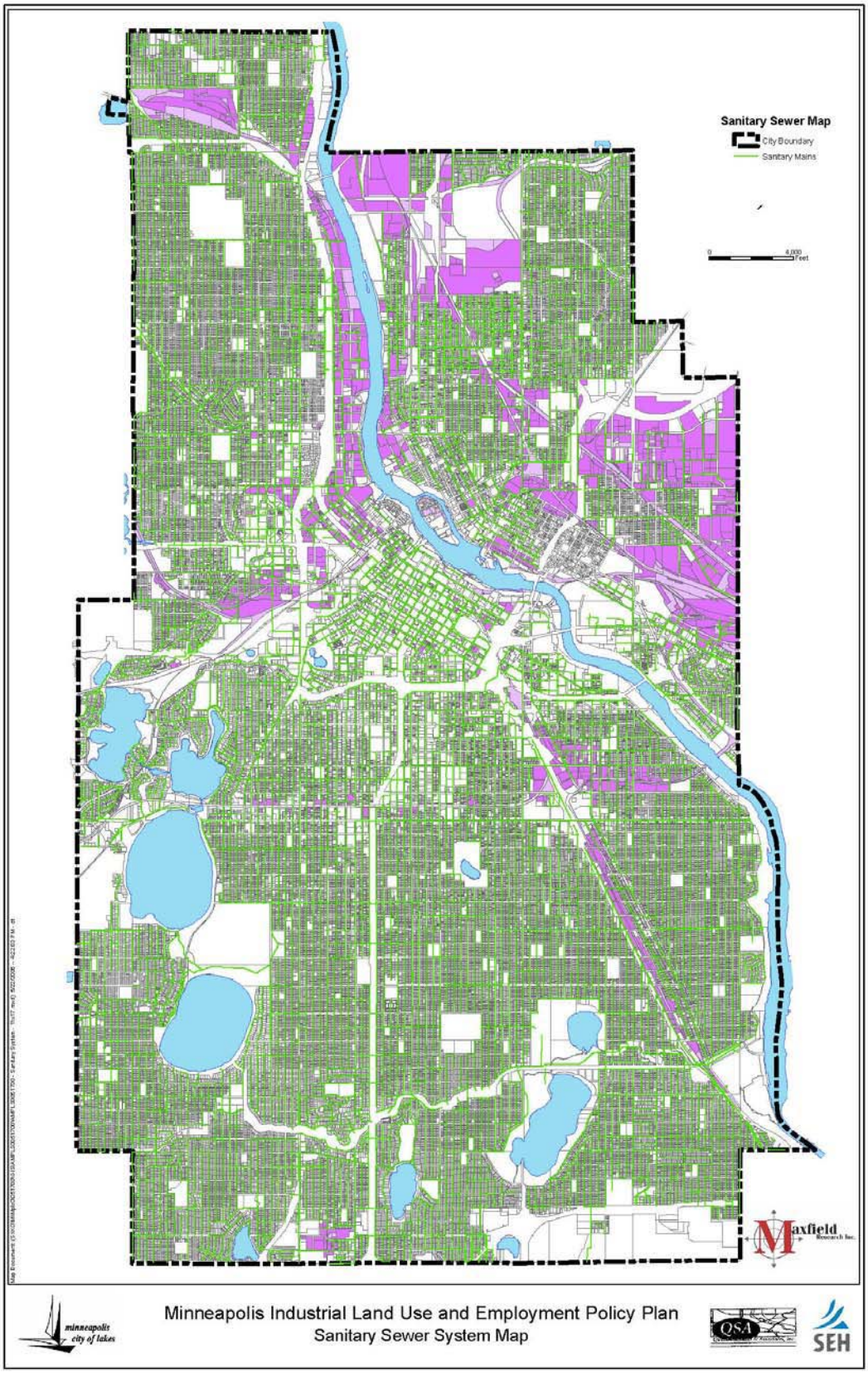
In most areas of Minneapolis, the roadway system is adequate to support existing and new industrial uses. There are exceptions, however, including the Southeast Minneapolis Industrial

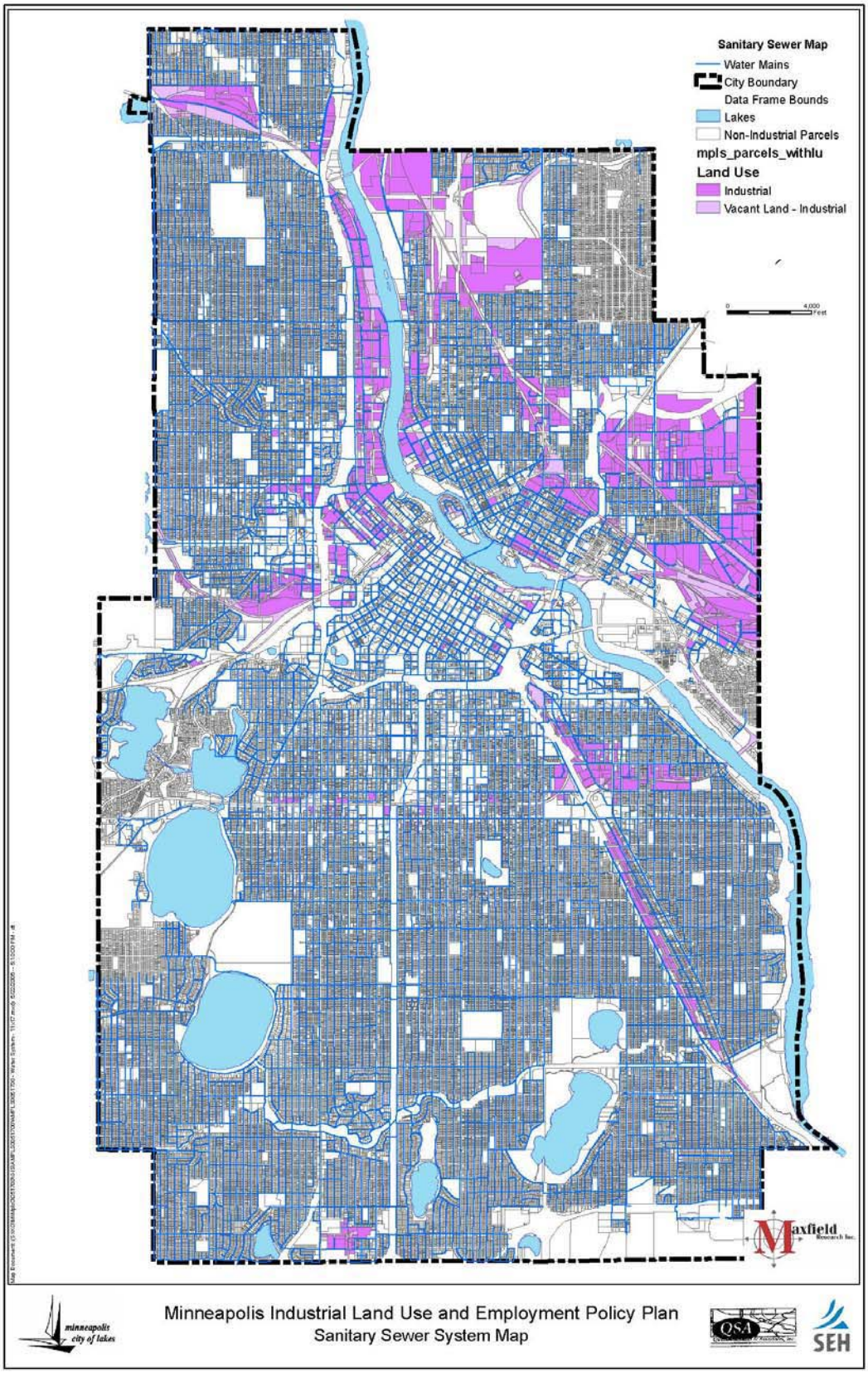
(SEMI) area where current planning efforts call for the construction of additional roadways through the area to accommodate increased automobile and truck traffic.

Additionally, truck routes will need to be carefully planned and current routes clearly marked should the City wish to stabilize or even increase industrial uses in any given area in the City. Businesses and residents alike have expressed concern over the inherent and potential conflicts between truck/freight traffic and automobiles on all classifications of roadways. The map that follows displays the established truck routes in Minneapolis.




Peak Hour Bus Frequency
Land Use
N
0 1,500 3,000 4,500
Feet
Minneapolis Industrial Land Use and Employment Policy Plan
Peak Hour Bus Frequency
minneapolis
city of lakes
QSA
SEH


Sanitary Sewer Map
City Boundary
Sanitary Mains
Minneapolis Industrial Land Use and Employment Policy Plan
Sanitary Sewer System Map
minneapolis city of lakes
QSA
SEH


Sanitary Sewer Map
Water Mains
City Boundary
Data Frame Bounds
Lakes
Non-Industrial Parcels
mpls_parcels_withlu
Land Use
Industrial
Vacant Land - Industrial
0
4,000
Feet
Maxfield Research Inc.
Minneapolis Industrial Land Use and Employment Policy Plan
Sanitary Sewer System Map
minneapolis city of lakes
QSA
SEH

Access to industrial properties from the roadway network is perhaps the most important factor in locating and preserving industrial users in the City. Industrial businesses and residents cite access as a key issue given the conflicts that can arise between vehicles being used for industrial uses and those for residential uses, as discussed previously. As revealed in the neighborhood meetings, residents who live near industrial users consider these businesses to be better neighbors if direct access is obtained to industrial sites from the primary roadway network, as opposed to routing trucks through neighborhoods or on local streets.

Transit is another important factor for industrial businesses in Minneapolis. Access to convenient public transportation is often cited as a determining factor in the locating of industrial businesses in the City. A larger share of industrial employees do not own automobiles or otherwise rely on transit to travel to and from their jobs, which business owners consider when building strategies to attract qualified workers. However, the current radial configuration of Metro Transit's bus system requires most riders who wish to travel from north Minneapolis to south and vice-versa to travel through downtown and/or to transfer (see map). Additionally, traveling in the east-west direction in the City is made difficult by the lack of routes to accommodate this movement. This is particularly evident north of downtown where most industrial land is concentrated, where there is only one location where buses cross the Mississippi River (the Lowry Avenue Bridge).

Utilities

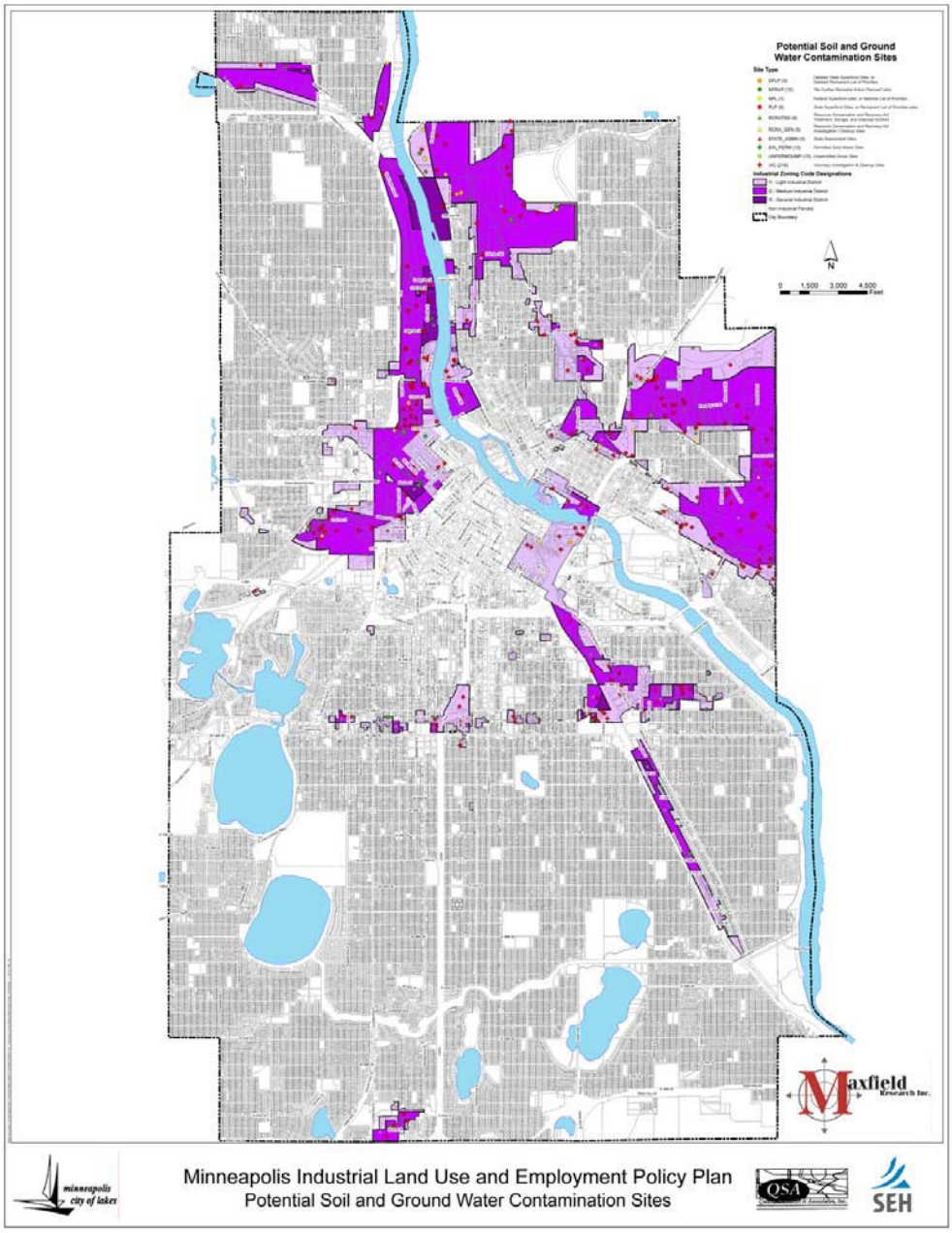
As stated above, the existing utility systems – including storm and sanitary sewers, watermain and telecommunications (see map on page 93) – appear adequate enough to support current and potential future industrial users within the City. Like many older urban areas, however, these networks are aging and require continuous maintenance and improvement regardless of the uses they serve. Therefore, the City must continue to invest in these improvements and where necessary replacement of substandard utilities at locations where this may be required.

While systems such as storm sewer, sanitary, and water mains are adequate for industrial uses throughout the City, telecommunications systems require closer scrutiny given the advances in technological requirements of industrial businesses. Access to the internet and other advanced technologies has become a major location factor for industrial users as well as commercial and residential users. In order to compete with surrounding suburban and other metropolitan areas for industrial businesses, Minneapolis must keep pace with these communities with the provision of wireless and fiber optic systems. To address this issue, the City is currently in the process of implementing a city-wide wireless broadband service that would be available to businesses and residents alike for a fee.

Contaminated Industrial Land Analysis

Minneapolis has a long heritage as a working town. An unfortunate consequence of that history is pollution. Before today's environmental safeguards, many heavy industrial users contaminated the land on which they operated. Maxfield Research and SEH Inc. analyzed and mapped data from the Minnesota Pollution Control Agency.

Key findings are presented below.



- As shown in the map, the City's industrial land supply has many contaminated sites.

- However, many of the sites are voluntarily being cleaned up under the supervision of the Minnesota Pollution Control Agency or Minnesota Department of Agriculture. Over 200 voluntary investigation and clean-up sites are located in Minneapolis.

Industrial Real Estate Market Trends

This section reviews key trends in the industrial real estate markets for Minneapolis and the Twin Cities Metro Area as a whole. The data was gathered from several sources, including published market reports from the Minnesota Chapter of the National Association of Industrial and Office Properties (NAIOP), United Properties, and Colliers Turley Martin Tucker, published summaries of academic research, and interviews with commercial brokers who specialize in industrial real estate.

For purposes of this study, the following are key findings that inform land use and employment policy and drive the recommendations in this report. A more detailed discussion summarizing these trends is contained in the sections that follow.

1. **The late 1990s were characterized by significant development in new industrial projects.** With rising lease rates driven by strong economic growth and stable land costs, developers took advantage of opportunities across the spectrum of industrial real estate. Much of the new industrial development occurred outside the Interstate 494/694 beltway.

2. **Following the 2001 recession, little new industrial development has occurred.** In the last five years, land costs have increased while industrial lease rates have remained stable. New industrial development has occurred in critical areas where higher lease rates can be achieved. But for the most part, the Metro Area has seen a tightening of industrial land supply.

3. **Rising land costs in the Metro Area have made "brownfield" development in the Minneapolis more economically viable.** Higher land costs have made "greenfield" development outside the Interstate 494/694 beltway more costly and increased the competitive viability for many redevelopment opportunities in Minneapolis and other communities within the beltway.

4. **With tighter supply, industrial users have been forced to deal with new constraints.** In past years, industrial users had more options for newly developed industrial space to satisfy their growth needs. Users experiencing growth would typically prefer to consolidate their businesses at one site, most likely a newly constructed development. However, with a tighter market for new industrial space, these users are now considering retrofitting existing spaces or locating operations at several sites.

5. **Traditional attributes that have made industrial real estate marketable still apply.** Access to transportation, both highway and rail, will continue to be critical for industrial real estate. Other important attributes are proximity to customers, suppliers, and labor force.

6. **Flexibility will be the key feature for industrial development in the future.** Successful businesses must respond quickly to changes in the marketplace. Industrial space that can be quickly adapted to necessary changes in production, distribution, and administration will be in demand.

7. **The short-term and long-term industrial real estate market presents opportunities for industrial uses, and ultimately industrial employment, in Minneapolis.** In the short-term, industrial users are expected to need additional space, and the higher cost of new space may force many of these users to consider retrofitting an existing building or locating operations at multiple locations. In addition, the high cost of land metro-wide makes "brownfield" industrial development more feasible. Both trends present opportunities for industrial areas of Minneapolis. In the long-term, cheap land and good access will not be sufficient for industrial development. Specialized development, flexible space development, and proximity to a qualified labor pool will become more and more important for industrial users. The City of Minneapolis has an excellent opportunity to capitalize on these trends to increase the quality of employment in the city.

Secondary Market Data

Maxfield Research Inc. reviewed secondary data sources on the industrial real estate market in the Twin Cities Metro Area in order to determine trends and opportunities for Minneapolis. Tables 3.1 through 3.3 show average rent and vacancies for Minneapolis and the Twin Cities Metro Area for three general categories of industrial space. The data is from Colliers International and is published in their *Commercial Real Estate Repor*t. The survey covers multi-tenant industrial space in the Twin Cities Metro Area larger than 25,000 square feet.

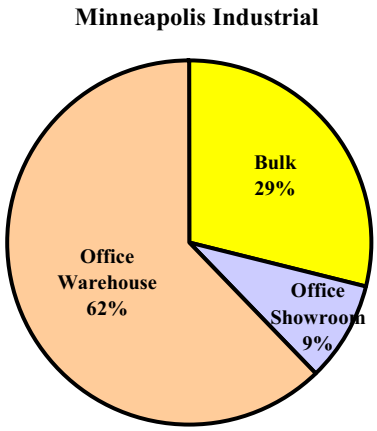
Colliers International categorizes industrial real estate into the following types. Similar classifications are used by all three of the secondary market sources used.

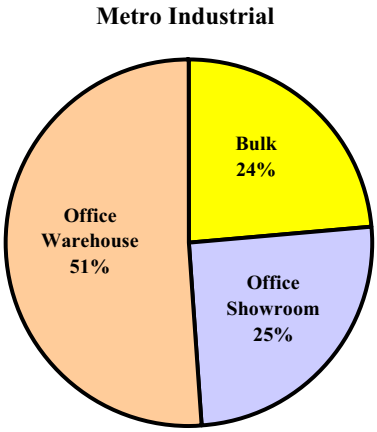
- **Office Showroom/Business Center.** Office Showroom space consists of multi-tenant buildings larger than 25,000 rentable square feet, more than 30% office space, and clear heights between 12 and 16 feet. These sites are typically near freeway access and have higher visibility. They are also characterized by usage flexibility, smaller bay sizes and better than average landscaping.

- **Office Warehouse.** These multi-tenant buildings are 25,000 square feet or more rentable area, typically offer 10% to 20% office space and have 16 to 20 feet clear ceiling heights.

- **Bulk Warehouse.** These multi-tenant buildings have 50,000 or more square feet of rentable area, were built after 1945, have between 5% and 10% office finished and have 20 feet or higher clear ceiling heights.

The chart that follows shows the distribution of each property type in the City of Minneapolis and the Twin Cities Metro Area. Compared to the Twin Cities as a whole, Minneapolis has more Office Warehouse and Bulk Warehouse space and less Office Showroom space. In general, about half of the industrial space in the Metro Area is Office Warehouse, one-fourth is Bulk Warehouse, and one-fourth is Office Showroom. In the City of Minneapolis, Office Warehouse makes up about 62%, Bulk Warehouse makes up about 29%, and Office Showroom makes up about 9%.





Key findings from Table 3.1 through 3.3 follow.

- In general rents across all project types have been slightly lower in the City of Minneapolis than the Metro Area as a whole. Much of this is likely because industrial properties in Minneapolis tend to be older.

- Average net lease rates are highest for Office Showroom, followed by Office Warehouse and Bulk Warehouse Space.

- Industrial lease rates have remained relatively stable between 1999 and 2004, for both warehouse and office space.

- In the Metro Area, vacancy rates across all property types have trended up between 1999 and 2004. Vacancy rates ended the period above 10% in all categories.

- Compared to the Metro Area as a whole, vacancy rates in the City of Minneapolis have changed more dramatically from year to year. Much of this volatility can be blamed on the fact that there are simply fewer properties surveyed in the City of Minneapolis, and, as a result, periodic vacancies can have a greater effect on the overall average.

- In 2004, Bulk Warehouse had the highest vacancy rate with 15% in the City of Minneapolis. Office Warehouse was 11% and Office Showroom was 7%.

- Maxfield Research Inc. compared results published by Colliers International with data published by other secondary market publications. Results were relatively consistent across sources.

TABLE 3.1
AVERAGE RENT AND VACANCY
OFFICE SHOWROOM/BUSINESS CENTER INDUSTRIAL SPACE
CITY OF MINNEAPOLIS AND TWIN CITIES METRO AREA
1999 TO 2004

Year	Average Net Rent		Weighted Average		4th Qtr. Vacancy
	Office	Warehouse	RE Taxes	Total Exp.	
	City of Minneapolis				
1999	$8.20	$3.95	$1.18	$2.61	9.4%
2000	$8.10	$3.85	$1.41	$2.77	10.1%
2001	$8.20	$3.85	$1.62	$2.86	4.3%
2002	$8.17	$4.67	$1.50	$2.77	3.3%
2003	$8.51	$4.33	$1.47	$2.87	7.7%
2004	$9.94	$4.61	$1.66	$3.14	6.6%
	Twin Cities Metro Area				
1999	$8.79	$4.45	$2.10	$3.23	9.4%
2000	$9.18	$4.72	$2.09	$3.38	9.7%
2001	$9.35	$4.67	$2.09	$3.47	11.7%
2002	$9.28	$4.77	$2.03	$3.66	11.6%
2003	$8.98	$4.49	$2.06	$3.84	10.4%
2004	$9.26	$4.56	$1.98	$3.79	12.4%

Sources: "Commercial Real Estate Report," Colliers Turley Martin Tucker;
Maxfield Research Inc.

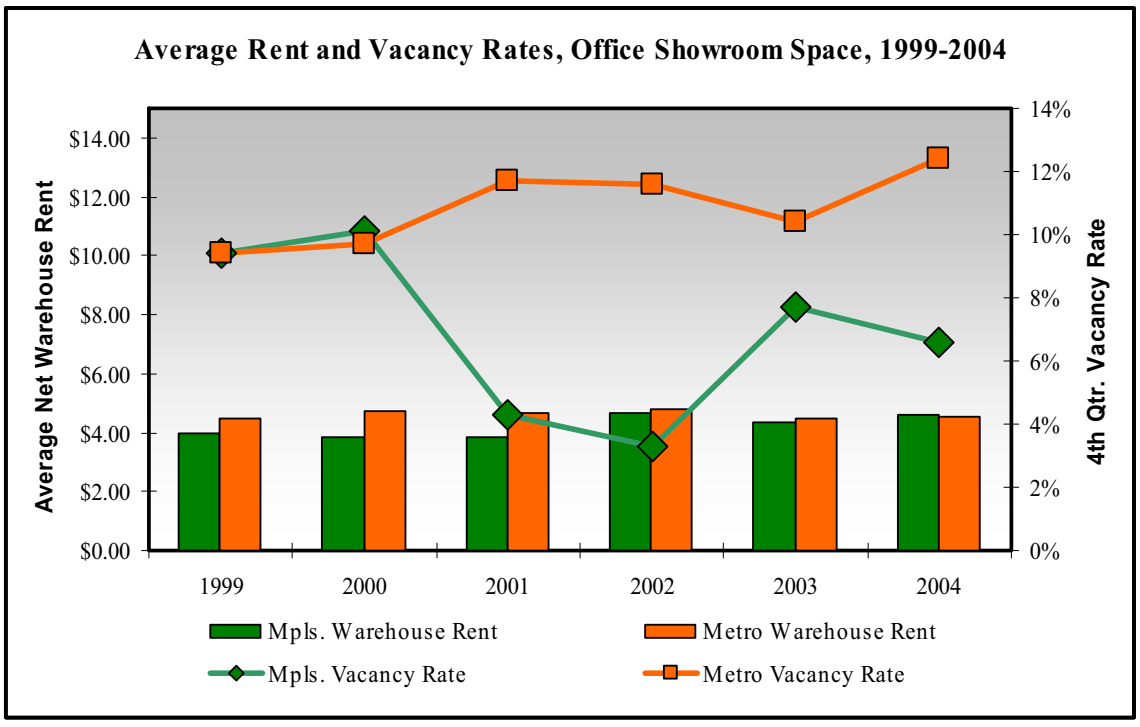


TABLE 3.2
AVERAGE RENT AND VACANCY
OFFICE WAREHOUSE INDUSTRIAL SPACE
CITY OF MINNEAPOLIS AND TWIN CITIES METRO AREA
1999 TO 2004

Year	Average Net Rent		Weighted Average		4th Qtr. Vacancy
	Office	Warehouse	RE Taxes	Total Exp.	
	City of Minneapolis				
1999	$7.22	$3.43	$1.23	$1.94	7.5%
2000	$7.49	$3.80	$1.30	$2.16	5.1%
2001	$7.69	$3.95	$1.33	$2.59	8.8%
2002	$7.72	$4.35	$1.60	$2.31	9.9%
2003	$8.41	$4.17	$1.64	$2.79	5.2%
2004	$7.79	$3.72	$1.40	$2.38	11.3%
	Twin Cities Metro Area				
1999	$7.76	$3.91	$1.41	$2.18	8.2%
2000	$8.20	$4.24	$1.56	$2.36	8.3%
2001	$8.48	$4.33	$1.62	$2.60	11.0%
2002	$8.40	$4.40	$1.47	$2.59	13.5%
2003	$8.68	$4.32	$1.53	$2.69	11.8%
2004	$8.47	$4.22	$1.44	$2.74	13.9%

Sources: "Commercial Real Estate Report," Colliers Turley Martin Tucker;
Maxfield Research Inc.

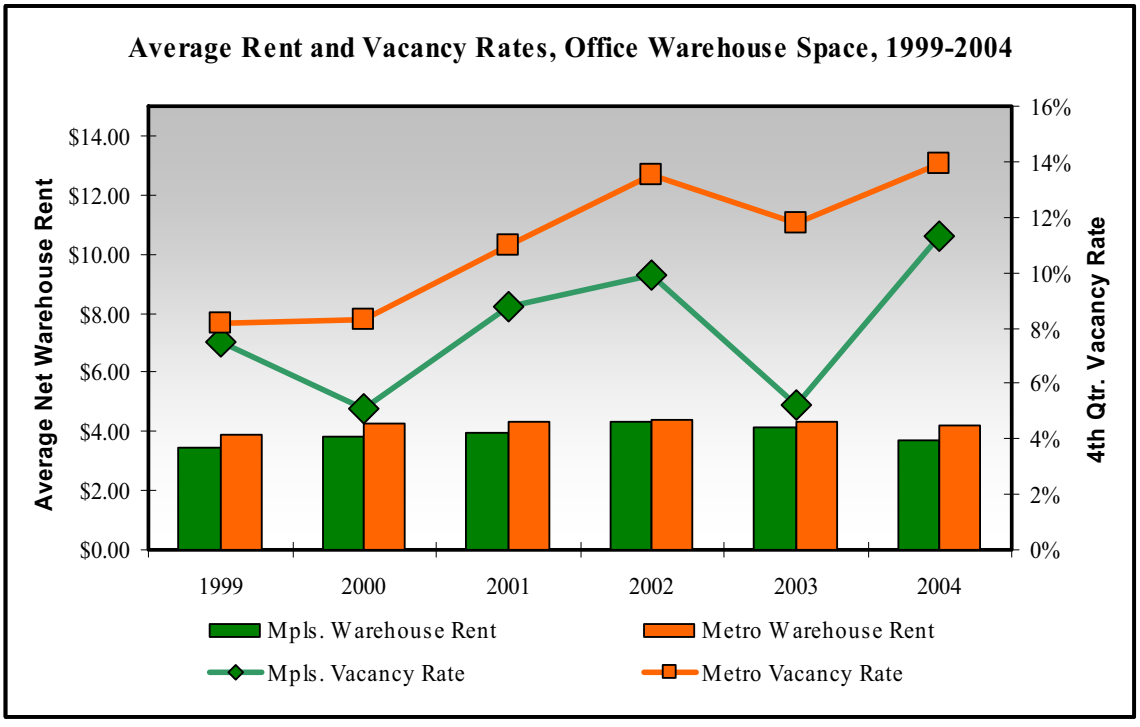


TABLE 3.3
AVERAGE RENT AND VACANCY
BULK INDUSTRIAL SPACE
CITY OF MINNEAPOLIS AND TWIN CITIES METRO AREA
1999 TO 2004

Year	Average Net Rent		Weighted Average		4th Qtr. Vacancy
	Office	Warehouse	RE Taxes	Total Exp.	
City of Minneapolis					
1999	$6.30	$2.98	$1.01	$1.66	3.1%
2000	$7.28	$3.48	$0.90	$1.71	11.9%
2001	$7.71	$3.66	$1.00	$2.12	13.1%
2002	$7.33	$4.00	$1.22	$2.40	26.8%
2003	$8.50	$3.50	$0.88	$2.07	17.9%
2004	$7.74	$3.92	$1.04	$2.15	14.6%
Twin Cities Metro Area					
1999	$7.37	$3.70	$1.10	$1.77	8.8%
2000	$7.77	$3.84	$1.07	$1.81	11.4%
2001	$7.96	$3.92	$1.15	$1.92	16.1%
2002	$7.44	$3.84	$1.26	$1.98	18.6%
2003	$7.82	$3.89	$1.16	$1.92	16.1%
2004	$7.97	$3.72	$0.97	$1.87	20.4%

Sources: "Commercial Real Estate Report," Colliers Turley Martin Tucker;
Maxfield Research Inc.

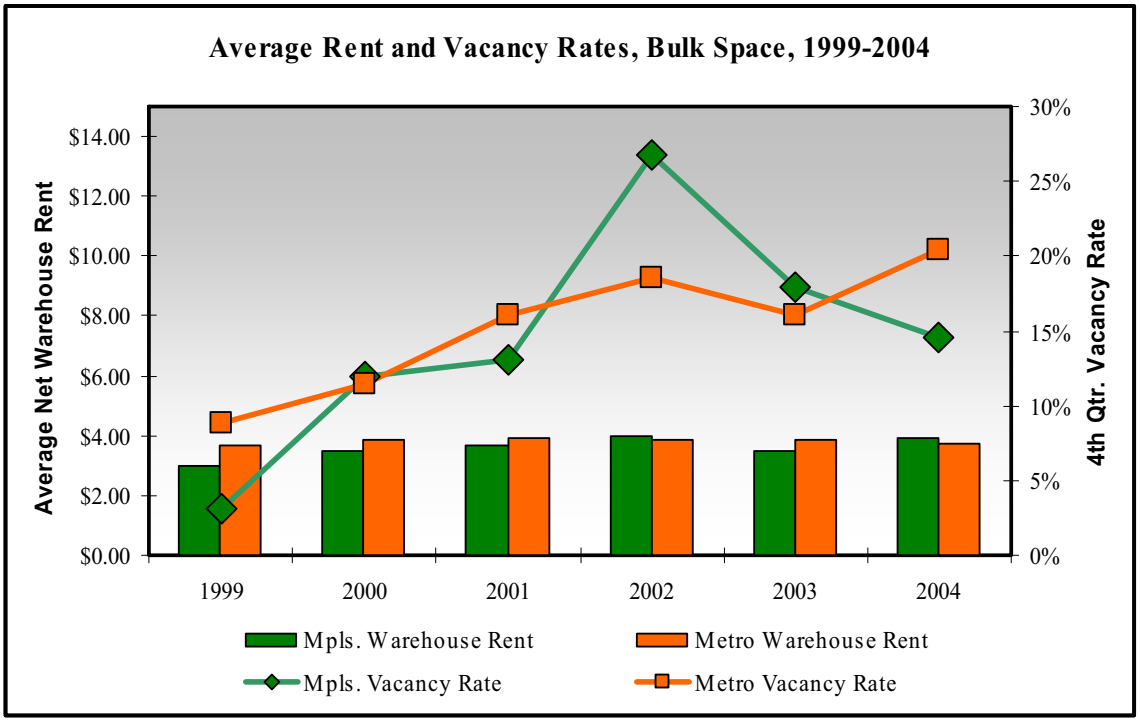


Table 3.4 shows net absorption, new project development, and vacancy rates for the three types of industrial space. This data is from the Minnesota Chapter of the National Association of Industrial and Office Properties (NAIOP), and is published in their 2005 Industrial Market Update. Key findings from Table 3.4 follow.

- Between 1996 and 2005, the Metro Area saw an average of 2.7 million square feet of industrial space absorbed by the market annually. Stronger absorption was seen between 1996 and 2000, when the annual average was 3.7 million square feet. Since 2000, the annual average has been 1.6 million square feet.

- New industrial projects slowed significantly after 2000. Between 1996 and 2000, the Metro Area saw an annual average of 4.4 million square feet of new industrial space. After 2000, the annual average declined to 1.4 million square feet of new industrial space.

- Consistent with data presented in Tables 3.1 through 3.3, the vacancy rate for industrial properties has increased in the last five years and remains above 20% in the Metro Area.

TABLE 3.4
NET ABSORPTION, NEW PROJECTS & VACANCY RATES
NAIOP 2005 INDUSTRIAL MARKET UPDATE
TWIN CITIES METRO AREA
1996 TO 2005

Year	Net Absorption (SF)	New Projects (SF)			Vacancy
		Bulk Warehouse	Office Warehouse	Office Showroom	
1996	2,580,519	852,600	1,703,150	184,000	5.7%
1997	3,424,894	822,200	2,702,551	501,426	6.3%
1998	4,999,472	1,999,223	3,707,617	784,821	8.1%
1999	3,184,164	1,287,752	1,700,748	1,141,719	8.6%
2000	4,137,046	1,527,567	1,773,347	1,087,009	9.3%
2001	1,539,835	1,030,624	1,384,925	742,064	10.8%
2002	394,498	0	1,821,792	830,557	13.5%
2003	3,040,491	0	44,028	266,882	11.8%
2004	878,198	0	100,000	323,500	11.6%
2005	2,376,818	260,000	140,000	145,000	11.2%

Sources: "2005 Industrial Market Update," Minnesota Chapter National Association of Industrial and Office Properties; Maxfield Research Inc.

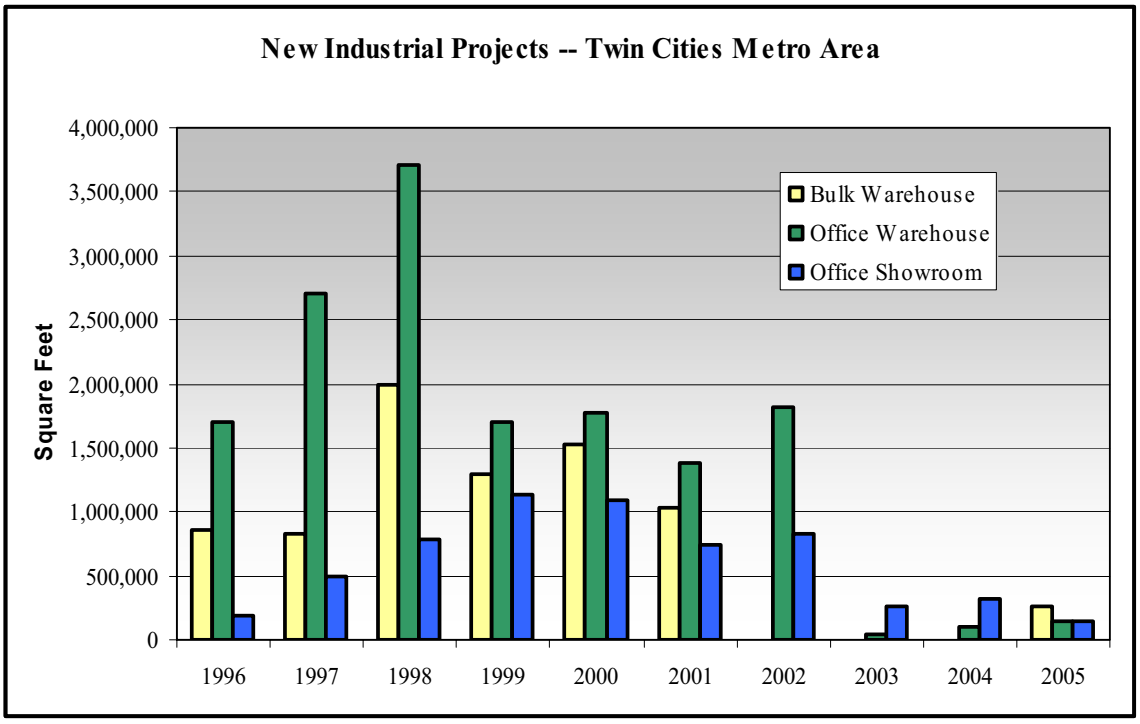


Table 3.6 shows new industrial development that is under construction, planned, or preliminary in the Twin Cities Metro Area. This data is published by United Properties in its *Outlook* publication. All but a handful would be located outside the Interstate 494/694 beltway. The average size of these projects is about 100,000 square feet. Typical lease rates are between $4 and $5 per square foot for warehouse and $8 and $11 per square foot for office.

TABLE 3.5
NEWLY-CONSTRUCTED INDUSTRIAL PROJECTS UNDER CONSTRUCTION AND PLANNED
TWIN CITIES METRO AREA
2005-2006

Under Construction

Name	Location	City	Sq. Ft.	Net Rate	Completion Date
High Point Business Center II	Hwy. 13 & Portland Ave.	Burnsville	43,200	NA	1Q 2006
Sand Creek Office/Warehouse	Xeon and 114th Ln NW	Coon Rapids	32,920	$4.50 whse/ $8.50 off	1Q 2006
Golden Valley Technology Center I	Sandburg Rd. & Douglas Dr.	Golden Valley	32,200	$11.00	2Q 2006
Eagle Creek Commerce Center III	Eagle Creek Parkway	Savage	122,912	$4.75	1Q 2006
River Bend Business Park I	355 Randolph Ave	St. Paul	76,000	$10.00/$5.00 Net	1Q 2006
			307,232		

Planned

Name	Location	City	Sq. Ft.	Net Rate	Start Date
Inverwood Business Park I	Hwy 55 & Barnes Ave.	Inver Grove Heights	200,000	$9.50/$4.50 Net	4Q 2006
Hayward, Helmo & 12th Avenue Bldg.	Hayward, Helmo & 12th Avenue	Oakdale	45,000	NA	4Q 2005
Xenium Dist Center	Carlson Parkway/Xenium	Plymouth	60,000	$4.50	2Q 2006
2200 Commerce Building	Commerce Blvd/George Weber	Rogers	150,000	$9.50/$4.75	2Q 2006
			455,000		

Preliminary

Name	Location	City	Sq. Ft.	Net Rate
Blaine Business Center	Cty Rd J and I-35W	Blaine	36,746	$5.00-10.00
The Preserve	95th Street and I-35W	Blaine	500,000	Off $9.75 Whse $4.75
West Bloomington Technology Park III	Normandale & Old Shakopee Rd.	Bloomington	78,000	NA
Bloomington Corporate Center	7001 Old Shakopee Rd.	Bloomington	99,000	NA
France Avenue Business Center III	4000 Lake Breeze	Brooklyn Center	80,000	NA
610 Business Park	Winnetka Ave. & Hwy. 610	Brooklyn Park	100,000	NA

Continued

TABLE 3.5
INDUSTRIAL PROJECTS UNDER CONSTRUCTION AND PLANNED
TWIN CITIES METRO AREA
2005-2006
(Continued)

Preliminary (Cont.)

Name	Location	City	Sq. Ft.	Net Rate
River Ridge Business Center I	Portland Ave & Hwy. 13	Burnsville	52,000	NA
River Ridge Business Center II	Portland Ave. & Hwy. 13	Burnsville	49,000	NA
Arboretum Business Park IV	xxx Century Blvd.	Chanhassen	97,640	NA
Chan Lakes Business Park - Upland Bldg.	8205-8245 Upland Circle	Chanhassen	28,821	NA
Northwood Business Park III	Northwoods Pkwy.	Eagan	50,000	$11.00/$4.75 Net
Burr Oak Tech Center	615 Yankee Doodle Rd.	Eagan	40,000	$5.00 Net
Gopher Commons	Yankee Doodle Rd & Hwy 149	Eagan	100,000	NA
6509 Flying Cloud Dr	Flying Cloud Drive	Eden Prairie	200,000	NA
Staring Lake Business Center	Hwy. 212 & Pioneer Trail	Eden Prairie	180,000	NA
Eden Bluffs	Hwy. 169/212 & Charleston Rd.	Eden Prairie	70,000	NA
Inverwood Business Park II	Hwy 55 & Barnes Ave.	Inver Grove Heights	250,000	$9.50/$4.50 Net
JBT Building	7900 215th St.	Lakeville	128,000	NA
Broadway Center	NE Broadway and I-35W	Minneapolis	80,000	$6.00-12.00
Schmidt Lake Business Center	Highway 169 & Schmidt Lake Rd	Plymouth	150,000	NA
143rd Avenue Building	143 143rd Ave.	Ramsey	48,800	NA
Rogers Industrial Park	Wilfred Rd.	Rogers	100,000	NA
Deans Lake Corporate Center	Hwy. 169 & Co. Rd. 83	Shakopee	70,000	NA
Shenandoah Business Center	Shenandoah Drive	Shakopee	70,000	NA
Deans Lake Contractor Showroom	Highway 169 & Highway 83	Shakopee	70,000	$5.50 net
Bridgepoint Business Park	NA	South St. Paul	41,000	NA
Bridgepoint Distribution Center	NA	South St. Paul	68,100	NA
Midway Corporate Business Center	Energy Park Drive and Hwy 280	St Paul	100,000	$5.50 whse/ $11.00 off
River Bend Business Park II	Shepard Rd & Randolph Ave	St Paul	44,000	$10.00/$5.00 Net
White Oak Phase II	Hwy 61 and Buerkle Road	White Bear Lake	78,000	NA
			3,059,107	

Sources: "Outlook," United Properties; Maxfield Research Inc.

Summary of Industrial Real Estate Market Trends

The following bullets present a summary of industrial real estate market trends. The information is summarized from secondary data sources, academic literature, interviews with commercial brokers, and other sources. These trends are important as they provide the basis for the land use and employment policy recommendations contained in this report.

Short-Term Trends

- Vacancy rates are expected to decline in the next few years as employment growth drives up demand for industrial space. The industrial market absorbed 3.8 million square feet in 2005 – more than three times the absorption in 2004. This strong activity helped push down vacancies to 13% at the end of 2005 from a historical high of 15.5% in 2004.

- Higher vacancy rates in the market recently (2002-2003) allowed firms to renegotiate leases, which helped some marginal firms weather tougher economic times.

- While there is a good deal of new construction in the pipeline, the last few years has been characterized by few new industrial projects in the Twin Cities Metro Area. (See Table 3.4.)

- Speculative industrial development is starting to return to the market. (See Table 3.5.) These projects face challenges, including high land, construction, and energy costs along with shortages of available land. Most developers will be forced to deal with the financial constraints of higher costs and uncertain lease rates.

- Many users who need additional space may simply retrofit an existing property or split up operations and move into multiple locations.

- Industrial lease rates – which remained relatively flat over the last five years – are expected to see upward pressure. Concessions are no longer the norm and landlords are pushing for longer lease terms. In addition, higher lease rates may push some tenants to older properties which typically have lower rates.

- Absorption is expected to remain strong over the next two to three years. Colliers International is projecting that another 3 million square feet could be absorbed in 2006 and that vacancy rates could lower to about 10%.

- With the high cost of available land and rising lease rates, "brownfield" development within the Interstate 494/694 loop will become more financially feasible. These sites face additional costs for land remediation.

- The number of for-sale industrial projects is expected to decline, as interest rates increase.

- One industrial real estate broker said that developers in the Twin Cities Metro Area do not have the experience to respond to the current market. They lack the specialized knowledge on how to build and finance flexible and build to suit sites.

- Industrial real estate brokers said they believe there is an opportunity to attract medical industrial businesses into industrial properties in the Twin Cities Metro Area. These businesses can afford higher land costs and want higher levels of finishes.

- Industrial real estate brokers also said there are opportunities for developers to build "bread and butter" industrial buildings. Buildings with 22- to 24-foot clear heights will be first to go.

Long-Term Trends

- Long-term trends in industrial real estate are driven by the changing needs of users. Identified in the employment analysis, these trends include dramatic changes in demographics and resulting changes in demands for goods and services, technological advances, globalization of markets, increased emphasis on cost containment, consolidation, and a changing regulatory environment. (See Pages 13 through 16 for a more detailed discussion.)

- Businesses best able to respond quickly in this environment will be the most competitive. As a result, a key demand of industrial users is flexibility.

- Users will want flexibility in their ability to use the space, with an ability to convert warehouse space to office and back to warehouse space, and with the leases offered by the property owner. One broker said that office/warehouse space should be able to convert anywhere from 25% to 100% of its space into office, if the user deems it necessary.

- Academic research shows similar trends. Studies find that larger companies are seeking to consolidate operations into singular facilities and, therefore, are looking for more office/industrial spaces rather than strictly industrial.

- Traditional manufacturing businesses are becoming more like distribution, management, and service businesses. Often these businesses will serve as the point of final production, an intermediate point where "just-in-time" inventory arrives and is quickly assembled and moved on to the final customer. The lines between manufacturing, warehousing, and distribution will become less defined.

- Flexibility of leases will also be in demand. As consolidation occurs throughout industries, larger firms will want the flexibility to locate an establishment quickly in a given area in response to shifting customer bases and costs. At the same time, these firms will want the flexibility to terminate or renegotiate leases in response to the same shifts. Properties that can be turned around quickly will be more competitive in this environment. This trend will especially be true for smaller industrial spaces.

- Counter to this trend is the fact that as industrial users become more specialized, industrial properties are becoming more tailored to the particular user. Site characteristics that in past have been considered universal (assess to rail and interstate, proximity to labor force, etc.) are becoming more complicated. Users need to have the right kind of access and need to be located to the right kind of labor pool. A site that may work well for one user may not work

well for another. Getting the right user to the right location will be critical. Site selection, as a result, has become a more difficult process.

- Local and national firms consider demographic changes in the population a true challenge and are looking for ways to adapt to this new environment. Specifically, many industrial users see the aging of the workforce as a trend that will increase costs and make it difficult to find qualified employees. These users want to be able to get the most production they can from a smaller workforce. Because these users will look for areas with an educated, well-trained workforce, they will consider the Twin Cities Metro Area a good location.

- There is a perception in the market that manufacturing is declining to the point where it will cease to exist in this market. Many brokers say that manufacturing is not dead. Strong companies, that can control their costs and remain competitive, will continue will thrive in this market.

- Industrial real estate brokers said that manufacturing in the Twin Cities will be lead by customized manufacturers. This niche in the manufacturing industry has been in the Twin Cities for a few years and the rest of the national market is just starting to catch up.

- Office Showroom space has traditionally been used by higher end office users who require some warehouse space for product storage, but typically build-out most of the space for office use. In the Twin Cities, these properties were at one time occupied by "dot.com" companies but are being replaced by medical supply/device firms.

- Brokers said that in the long-term there is an opportunity to attract medical industrial employers. These businesses can afford higher land costs and want higher levels of finishes.

- Overall, academic research finds that demand for warehouse space is declining due to "just-in-time" inventories, enhanced technology, and advances in logistics.

- Third party logistics companies are a significant force in the bulk warehouse industrial market.

- On national level, many traditional large bulk warehouse users are consolidating operations into mega warehouse and distribution centers with between 500,000 and 1 million square feet. Features include Early Suppression Fast Response sprinkler systems, 30-foot-plus ceilings, and abundant outdoor trailer storage. Most of these facilities are highly automated. This has resulted in an infusion of generation bulk space in to the market place, for both lease and sale. (Examples include Supervalu's new facility in Hopkins and Wal-Mart's 160-acre, 880,000-square-foot facility in Mankato.)

- Most of the large bulk warehouses – sometimes called "Big Box Industrial" – will be located outside the Metropolitan Urban Service Area (MUSA) line, where land is less expensive.

- Academic research suggests industrial properties tend to be segmented (manufacturing versus distribution) and clustered.

- In general, the academic research suggests that price per square foot decreases as buildings size increase. Consistent with interviews, the research suggests that demand for buildings 25,000 square feet or less tends to be strongest in most markets and market conditions.

- Academic research finds that key variables for the firm that affect industrial rents are access to raw materials and other markets, available services, freeway access, and airport access. Key variables for workers that can affect rents are education, crime rates, and proximity to shopping. Other positive variables are the number of grade high doors and the overall change in net employment. Variables that have a negative effect on industrial rents are ceiling height, percentage of office space, building age, and availability of sprinkler systems.

- Academic research finds that changes in national economy affect industrial rents on the local level. But the largest affect is from local demand and supply factors.

What Users Want

- Access to highway and rail will continue to be critical.

- Employers and businesses are now part of national and international markets. As a result, employers are very concerned about maximizing speed to markets. Employers want to minimize permitting and construction time, want the lowest cost for building design and construction materials, and are looking for jurisdictions with lower taxes.

- Flexible space is critical because employers want the ability to change production to respond to shifts in the marketplace.

- One source said the market for properties with about 15,000 to 20,000 square feet is deep.

- In recent years, businesses have wanted to own the space they occupy. Low interest rates and tax advantages have fueled this trend.

- Close proximity to labor force is key for industrial users. One source said employers want to be located near "brain pools." Industrial real estate brokers said that some employers are having difficulty doing multiple shifts because they cannot find the labor to support that work load.

Inside versus Outside Interstate 494/696 Beltway

- In the Metro Area, the industrial land development environment is different for properties within the Interstate 394/694 beltway, for both new development and redevelopment.

- In general, the government approval process is stricter within the beltway (the term one source used was "painstaking."). There is a perception that government officials outside the beltway are more motivated to get development deals done. In addition, many municipal

governments within the beltway have adopted stricter design standards, which have ultimately driven up the cost of building materials.

- Most municipalities within the beltway prohibit outdoor storage, a feature many industrial users want.

- Development fees have been increasing across municipalities in the Metro Area. However, these fees tend to be higher inside the beltway than outside.

- Many industrial property owners outside the beltway offer greater leasing flexibility to users.

- Drawbacks to industrial development outside the beltway are the fact the infrastructure may not be sufficient, undersized roads and limited access, difficulty assembling larger tracts of land, and a local culture that might not be used to larger scale land development.

- Another key issue for industrial users outside the beltway is access to a qualified labor force. One broker said he had a potential tenant "test the waters" by posting job listings for a new location in Elk River. When that tenant did not receive a single call about the listing, the potential tenant decided to remain it its current location within the beltway.

- Economic development officials outside the Twin Cities Metro Area are also working hard to attract industrial users away from the Twin Cities. One source said these officials have had the best luck with users who are more concerned about land costs and infrastructure and less about labor force issues. Many of these industrial users are concerned about reliable electricity provision for specialized manufacturing.

- Also, outside the Twin Cities, industrial users are attracted to the benefits of the JOBZ program, a state economic development program that provides tax breaks for business relocating or expanding in Greater Minnesota. However, the perception remains for businesses seeking this type of assistance that Minnesota does not provide as much assistance as states farther south.

- Many people believe that the JOBZ program has done a good job of assisting home-grown businesses but does not help attract businesses from outside the state because labor costs, land costs, and taxes are still too high.

- Whereas the industrial real estate market inside and outside the beltway overlap, most likely the markets for industrial real estate in Greater Minnesota and the City of Minneapolis are distinct markets.

Public Policy and Industrial Real Estate

- Several cities are discussing added design criteria which will increase construction costs. These criteria increase compatibility between industrial uses and residential uses. But the added costs drive up lease rates and may push some users into jurisdictions without design standards.

- Distribution sector has seen particular challenges recently. In addition to issues related to inadequate transportation infrastructure and energy costs, many municipalities have expressed both explicitly and implicitly that they do not want distribution businesses because of the truck traffic they bring.

Freight Transportation Trends

From its beginnings as a village on the Mississippi, Minneapolis' industry has been based on access to transportation routes. In order to access how freight transportation trends affect the overall industrial land market in Minneapolis, the study team reviewed several studies on freight trends. As several policymakers have suggested, Minneapolis benefits from its location along the river, its highway and rail infrastructure, and its proximity to Minneapolis St. Paul International Airport.

The key finding from this review is that trucking freight transportation is expected to see the greatest growth over the next 20 year period, and that, with the exception of smaller niche markets, the industrial real estate market will have to respond appropriately to this reality. There will be continued opportunities for water, air, and rail cargo. However, efforts to capitalize on these markets will require specialized approaches and collaborations with strategic partners familiar with these niches.

Key findings from the freight transportation review follow.

General

- According the U.S. Department of Transportation Freight Analysis Framework (FAF), of all freight shipments to, from, and within Minnesota in 1998, highway accounted for 59%, rail accounted for 31%, and water shipments made up 10%. The remainder is air freight, pipeline, and other forms of shipments. By 2020, highway is expected to make up 67% of freight, rail will make up 26%, and water shipments will make up 6%.

- As Minnesota's economy transitions to focus more on service industries and consumption, growth in inbound freight between 1998 and 2020 is expected to grow by 92%, where growth in outbound freight is expected to be 52%.

- An increase in the amount of high-value, low-weight goods combined with a decrease in resource industries and shipments will shift the freight focus to premium freight services such as trucking and air cargo and away from bulk cargo operations.

- Currently, the Midwest region is Minnesota's largest trading partner. The FAF projects that the South will become Minnesota's largest trading partner in the future. Inbound shipments from the South typically rely on trucking and rail routes.

- International shipments are projected to have the highest rates of growth between 1998 and 2020. However, the overall tonnage of these shipments is relatively low compared to other trading partners.

- The logistics industry has seen a transformation in the latter part of the 20th century and in the last few years. "Push" logistic systems, where the movement of goods was largely a function of manufacturing activity, are being replaced by "pull" logistic systems, where goods are moved base on customer preferences.

Trucking

- Between 1998 and 2020, highway freight shipments are expected to increase by over 90%. In 1999, it is estimated that trucking freight made up about 59% of total shipments to and from Minnesota. By 2020, it is projected that highway freight will make up 67% of total freight shipments.

- The most significant force in the trucking industry recently has been deregulation, which has considerably increased the number of trucking firms in the market.

- However, higher fuel costs, high insurance costs, and truck driver shortages have increase operating costs for the industry.

Rail

- Rail freight is projected to increase by 41% between 1998 and 2020. However, as a percentage of all freight shipped to and from Minnesota, it is expected to go from 31% in 1998 to 26% in 2020.

- The rail freight industry has also benefited from deregulation, reducing operation costs. However, the industry has not been able to achieve a return on investment high enough to spawn additional infrastructure investment in Minnesota.

- Rail is also limited in that while it has access to western routes to Seattle and eastern routes to Chicago, it is not linked to the South and Southwestern parts of the country. Although there are some routes north and south, most shipments from these areas must pass through Chicago, where transportation bottlenecks could have detrimental effects on Minnesota shipments.

- Rail freight service has seen an increase due to an increased demand for western low-sulfur coal.

Water

- Water cargo transportation is expected to remain constant or decline somewhat in Minnesota over the next 20 year period. The FAF projects water cargo to increase by only 4% between 1998 and 2020.

- National increases in water cargo transportation are expected to occur in the containerized cargo mode. Very little cargo is shipped to and from Minnesota in this manor due to limitations along the Mississippi and St. Lawrence rivers.

- While agricultural exports are expected to increase in gross tonnage, these increases are expected to be offset by declines in coal shipments, as energy producers move to western low-sulfur coal typically shipped by rail.

Air

- According to the FAF, air cargo freight is expected to more than double over the next 20 years. However, by 2020, air cargo will amount to only 0.2% of the total tonnage transported in Minnesota.

- The air freight market can be segmented into three groups, traditional airlines, dedicated freight carriers, and service integrators. Tradition airlines (ex. Northwest/KLM) carry freight in bellyholds of passenger aircraft along with aircraft dedicated to freight. Dedicated freight carriers (ex. Cargolux, Polar Air Cargo, Nippon Cargo Airlines, and Air Hong Kong) use only freight aircraft. Service integrators (ex. UPS, FedEx, DHL, and TNT) combine logistics services with surface and air freight modes. While much of the current freight is delivered by traditional airlines and dedicated freight carriers, service integrators are quickly gaining ground.

- Because of limited international passenger service provided at MSP International, international air freight is also somewhat limited.

- A 2001 SITA Logistics Solutions report recommended the Metropolitan Airports Commission (MAC) establish a cargo airport at Duluth, St. Cloud, Rochester, or Willmar to focus on air freight. It also recommended the MAC also establish a regional freight distribution center to provide logistics and storage services connecting the all cargo airport with the Metro Area. Although these recommendations have been discussed at the state and local levels, action has not been taken.

Industrial Demand Calculation

Two methodologies are used to estimate demand for industrial land in Minneapolis. The first methodology, shown in Table 3.7, looks at Minneapolis' industrial base and applies metro growth rates to estimated demand for industrial acreage in the City between 2002 and 2012. The second methodology, shown in Table 3.8, estimates demand for industrial acreage in the Metro Area between 2002 and 2012 and estimates demand in Minneapolis by applying an estimated capture rate. The demand estimates are organized by the industry segments described on Page 193.

The demand estimates are helpful in that the estimates combine projections with land use assumptions to determine industrial land needs in Minneapolis. These estimates should not be

viewed as precise estimates. There are many factors that could have dramatic effects on the estimates, such as economic shocks to the national economy, significant land use changes in Minneapolis or elsewhere in the Metro Area, or one or two large employers either leaving the City or choosing to relocate to the City. These estimates should be viewed as estimates only.

However, that said, the estimates show that based on industry projections for the region and the land use assumptions, there will be demand for industrial land in the City in the next ten years. The projections show where it is most likely the demand will come from.

Demand Calculation 1

The following bullet points outline the demand calculations shown in Table 3.7.

- Four-digit NAICS industries are organized by industrial employment segment – 21st Century Jobs, Opportunity Jobs, and Legacy Jobs. Included is the estimate for Minneapolis employment in 2002. Employment estimates are derived from the Covered Employment data (See Appendix I).

- Estimates for year 2012 employment are derived by applying the estimated percentage change in employment for the four-digit NAICS code at the Metro Area level. These percent change figures were provided by the Minnesota Department of Employment and Economic Development.

- The employment figures for each four-digit NAICS code are multiplied by the estimated employees per acre, shown in Table 2.1.

- Acreage for 2002 is compared to acreage for 2012. The difference is summed across Industries to determine total needs for Minneapolis.

- The estimate shows demand for six acres of new industrial land for 21st Century Job Industries, 83 acres for Opportunity Job Industries, and 99 acres for Legacy Job Industries. The total demand for Minneapolis is 187 acres between 2002 and 2012.

- One way to interpret this demand calculation is view this demand as demand that come from expansions at existing employers in the City. In other words, the base of employment in the City will grow or decline based on the rate of growth of each industry at the Metro Area level. Industrial demand is driven by growth and decline of the City's existing employers.

TABLE 3.6
DEMAND CALCULATION 1
INDUSTRIAL DEMAND IN MINNEAPOLIS
2002 TO 2012

NAICS Code	NAICS Description	Minneapolis Est. 2002 Employment	Minneapolis Proj. 2012 Employment	Est. Employment Per Acre	Est. 2002 Acreage	Proj. 2012 Acreage	2002-2012 Change in Acreage
	"21st Century Industrial Employment"						
5417	Scientific Research and Development Services	1,666	2,121	60	28	35	8
4234	Professional and Commercial Equipment and Supplies Merchant Wholesalers	1,364	1,473	20	68	74	5
3345	Navigational, Measuring, Electromedical, and Control Instruments Manufacturing	1,255	1,301	30	42	43	2
5413	Architectural, Engineering, and Related Services	66	71	60	1	1	0
5179	Other Telecommunications	76	98	60	1	2	0
2372	Land Subdivision	89	99	30	3	3	0
5122	Sound Recording Industries	123	129	60	2	2	0
5172	Wireless Telecommunications Carriers (except Satellite)	50	56	60	1	1	0
5173	Telecommunications Resellers	204	209	60	3	3	0
3342	Communications Equipment Manufacturing	25	26	30	1	1	0
3254	Pharmaceutical and Medicine Manufacturing	3	5	30	0	0	0
3365	Railroad Rolling Stock Manufacturing	0	0	30	0	0	0
3346	Manufacturing and Reproducing Magnetic and Optical Media	82	77	30	3	3	0
3341	Computer and Peripheral Equipment Manufacturing	18	11	30	1	0	0
5174	Satellite Telecommunications	120	71	60	2	1	-1
3364	Aerospace Product and Parts Manufacturing	175	135	30	6	5	-1
5111	Newspaper, Periodical, Book, and Directory Publishers	3,687	3,591	60	61	60	-2
3344	Semiconductor and Other Electronic Component Manufacturing	231	179	30	8	6	-2
5171	Wired Telecommunications Carriers	2,203	1,944	60	37	32	-4
"21st Century Industrial Employment" Total		**11,437**	**11,596**		**267**	**273**	**6**

Continued

TABLE 3.6
DEMAND CALCULATION 1
INDUSTRIAL DEMAND IN MINNEAPOLIS
2002 TO 2012
Continued

NAICS Code	NAICS Description	Minneapolis Est. 2002 Employment	Minneapolis Proj. 2012 Employment	Est. Employment Per Acre	Est. 2002 Acreage	Proj. 2012 Acreage	2002-2012 Change in Acreage
	"Opportunity Industrial Employment"						
4236	Electrical and Electronic Goods Merchant Wholesalers	1,324	1,603	20	66	80	14
2382	Building Equipment Contractors	1,551	1,857	30	52	62	10
2381	Foundation, Structure, and Building Exterior Contractors	1,076	1,334	30	36	44	9
4889	Other Support Activities for Transportation	124	294	15	8	20	11
3339	Other General Purpose Machinery Manufacturing	1,460	1,685	30	49	56	8
2362	Nonresidential Building Construction	1,174	1,352	30	39	45	6
2383	Building Finishing Contractors	774	948	30	26	32	6
3391	Medical Equipment and Supplies Manufacturing	789	963	30	26	32	6
4237	Hardware, and Plumbing and Heating Equipment and Supplies Merchant Wholesalers	476	580	20	24	29	5
4251	Wholesale Electronic Markets and Agents and Brokers	1,324	1,427	20	66	71	5
4238	Machinery, Equipment, and Supplies Merchant Wholesalers	959	1,026	20	48	51	3
2361	Residential Building Construction	711	805	30	24	27	3
3372	Office Furniture (including Fixtures) Manufacturing	447	544	30	15	18	3
4841	General Freight Trucking	225	266	15	15	18	3
4233	Lumber and Other Construction Materials Merchant Wholesalers	604	669	20	30	33	3
3219	Other Wood Product Manufacturing	256	333	30	9	11	3
4235	Metal and Mineral (except Petroleum) Merchant Wholesalers	388	446	20	19	22	3
4241	Paper and Paper Product Merchant Wholesalers	472	525	20	24	26	3
5175	Cable and Other Program Distribution	359	494	60	6	8	2

Continued

TABLE 3.6
DEMAND CALCULATION 1
INDUSTRIAL DEMAND IN MINNEAPOLIS
2002 TO 2012
Continued

NAICS Code	NAICS Description	Minneapolis Est. 2002 Employment	Minneapolis Proj. 2012 Employment	Est. Employment Per Acre	Est. 2002 Acreage	Proj. 2012 Acreage	2002-2012 Change in Acreage
3261	Plastics Product Manufacturing	408	472	30	14	16	2
4246	Chemical and Allied Products Merchant Wholesalers	269	311	20	13	16	2
4885	Freight Transportation Arrangement	127	163	15	8	11	2
4242	Drugs and Druggists' Sundries Merchant Wholesalers	230	265	20	12	13	2
3273	Cement and Concrete Product Manufacturing	198	242	30	7	8	1
4239	Miscellaneous Durable Goods Merchant Wholesalers	503	530	20	25	27	1
4842	Specialized Freight Trucking	122	140	15	8	9	1
4882	Support Activities for Rail Transportation	110	138	15	7	9	2
3255	Paint, Coating, and Adhesive Manufacturing	454	488	30	15	16	1
5629	Remediation and Other Waste Management Services	111	169	50	2	3	1
8113	Commercial and Industrial Machinery and Equipment (except Automotive and Electronic) Repair and	187	238	50	4	5	1
2213	Water, Sewage and Other Systems	383	419	40	10	10	1
2389	Other Specialty Trade Contractors	165	192	30	6	6	1
3334	Ventilation, Heating, Air-Conditioning, and Commercial Refrigeration Equipment Manufacturing	201	221	30	7	7	1
3335	Metalworking Machinery Manufacturing	137	159	30	5	5	1
2212	Natural Gas Distribution	1,106	1,132	40	28	28	1
4854	School and Employee Bus Transportation	229	237	15	15	16	1
5621	Waste Collection	99	128	50	2	3	1
3271	Clay Product and Refractory Manufacturing	18	26	30	1	1	0
5324	Commercial and Industrial Machinery and Equipment Rental and Leasing	60	66	20	3	3	0
3353	Electrical Equipment Manufacturing	220	234	30	7	8	0
4884	Support Activities for Road Transportation	98	105	15	7	7	0

Continued

TABLE 3.6
DEMAND CALCULATION 1
INDUSTRIAL DEMAND IN MINNEAPOLIS
2002 TO 2012
Continued

NAICS Code	NAICS Description	Minneapolis Est. 2002 Employment	Minneapolis Proj. 2012 Employment	Est. Employment Per Acre	Est. 2002 Acreage	Proj. 2012 Acreage	2002-2012 Change in Acreage
4232	Furniture and Home Furnishing Merchant Wholesalers	244	252	20	12	13	0
3371	Household and Institutional Furniture and Kitchen Cabinet Manufacturing	107	114	30	4	4	0
4248	Beer, Wine, and Distilled Alcoholic Beverage Merchant Wholesalers	46	52	20	2	3	0
3111	Animal Food Manufacturing	48	55	30	2	2	0
3312	Steel Product Manufacturing from Purchased Steel	363	370	30	12	12	0
3326	Spring and Wire Product Manufacturing	33	39	30	1	1	0
3322	Cutlery and Handtool Manufacturing	50	56	30	2	2	0
3333	Commercial and Service Industry Machinery Manufacturing	42	48	30	1	2	0
2371	Utility System Construction	22	25	30	1	1	0
3241	Petroleum and Coal Products Manufacturing	213	217	30	7	7	0
3336	Engine, Turbine, and Power Transmission Equipment Manufacturing	75	79	30	3	3	0
3252	Resin, Synthetic Rubber, and Artificial Synthetic Fibers and Filaments Manufacturing	17	19	30	1	1	0
3366	Ship and Boat Building	1	2	30	0	0	0
3274	Lime and Gypsum Product Manufacturing	2	2	30	0	0	0
3369	Other Transportation Equipment Manufacturing	1	1	30	0	0	0
3251	Basic Chemical Manufacturing	9	9	30	0	0	0
3211	Sawmills and Wood Preservation	0	0	30	0	0	0
3253	Pesticide, Fertilizer, and Other Agricultural Chemical Manufacturing	0	0	30	0	0	0
3279	Other Nonmetallic Mineral Product Manufacturing	0	0	30	0	0	0
3313	Alumina and Aluminum Production and Processing	0	0	30	0	0	0

Continued

TABLE 3.6
DEMAND CALCULATION 1
INDUSTRIAL DEMAND IN MINNEAPOLIS
2002 TO 2012
Continued

NAICS Code	NAICS Description	Minneapolis Est. 2002 Employment	Minneapolis Proj. 2012 Employment	Est. Employment Per Acre	Est. 2002 Acreage	Proj. 2012 Acreage	2002-2012 Change in Acreage
3361	Motor Vehicle Manufacturing	0	0	30	0	0	0
3324	Boiler, Tank, and Shipping Container Manufacturing	0	0	30	0	0	0
3331	Agriculture, Construction, and Mining Machinery Manufacturing	6	6	30	0	0	0
3221	Pulp, Paper, and Paperboard Mills	2	2	30	0	0	0
4832	Inland Water Transportation	2	2	15	0	0	0
3325	Hardware Manufacturing	1	1	30	0	0	0
3314	Nonferrous Metal (except Aluminum) Production and Processing	15	14	30	0	0	0
3315	Foundries	464	462	30	15	15	0
2379	Other Heavy and Civil Engineering Construction	17	16	30	1	1	0
3259	Other Chemical Product and Preparation Manufacturing	119	116	30	4	4	0
3262	Rubber Product Manufacturing	237	233	30	8	8	0
3343	Audio and Video Equipment Manufacturing	17	14	30	1	0	0
3321	Forging and Stamping	313	307	30	10	10	0
5622	Waste Treatment and Disposal	36	24	50	1	0	0
3311	Iron and Steel Mills and Ferroalloy Manufacturing	33	28	30	1	1	0
3359	Other Electrical Equipment and Component Manufacturing	36	30	30	1	1	0
3323	Architectural and Structural Metals Manufacturing	672	666	30	22	22	0
3121	Beverage Manufacturing	67	60	30	2	2	0
4247	Petroleum and Petroleum Products Merchant Wholesalers	26	20	20	1	1	0
3362	Motor Vehicle Body and Trailer Manufacturing	116	97	30	4	3	-1
3363	Motor Vehicle Parts Manufacturing	65	42	30	2	1	-1
3399	Other Miscellaneous Manufacturing	542	521	30	18	17	-1

Continued

TABLE 3.6
DEMAND CALCULATION 1
INDUSTRIAL DEMAND IN MINNEAPOLIS
2002 TO 2012
Continued

NAICS Code	NAICS Description	Minneapolis Est. 2002 Employment	Minneapolis Proj. 2012 Employment	Est. Employment Per Acre	Est. 2002 Acreage	Proj. 2012 Acreage	2002-2012 Change in Acreage
4883	Support Activities for Water Transportation	130	105	15	9	7	-2
3327	Machine Shops; Turned Product; and Screw, Nut, and Bolt Manufacturing	819	788	30	27	26	-1
3332	Industrial Machinery Manufacturing	203	171	30	7	6	-1
3112	Grain and Oilseed Milling	357	299	30	12	10	-2
3272	Glass and Glass Product Manufacturing	49	26	30	2	1	-1
3328	Coating, Engraving, Heat Treating, and Allied Activities	699	658	30	23	22	-1
4243	Apparel, Piece Goods, and Notions Merchant Wholesalers	287	252	20	14	13	-2
3256	Soap, Cleaning Compound, and Toilet Preparation Manufacturing	402	341	30	13	11	-2
3329	Other Fabricated Metal Product Manufacturing	343	279	30	11	9	-2
3222	Converted Paper Product Manufacturing	1,040	961	30	35	32	-3
3231	Printing and Related Support Activities	3,113	3,034	30	104	101	-3
2373	Highway, Street, and Bridge Construction	1,762	1,668	30	59	56	-3
2211	Electric Power Generation, Transmission and Distribution	2,218	2,094	40	55	52	-3
4821	Rail Transportation	451	342	15	30	23	-7
4911	Postal Service	4,826	4,633	15	322	309	-13
"Opportunity Industrial Employment" Total		**40,684**	**42,878**		**1,648**	**1,731**	**83**

Continued

TABLE 3.6
DEMAND CALCULATION 1
INDUSTRIAL DEMAND IN MINNEAPOLIS
2002 TO 2012
Continued

NAICS Code	NAICS Description	Minneapolis Est. 2002 Employment	Minneapolis Proj. 2012 Employment	Est. Employment Per Acre	Est. 2002 Acreage	Proj. 2012 Acreage	2002-2012 Change in Acreage
	"Run of the Mill Industrial Employment"						
4921	Couriers	1,707	2,379	15	114	159	45
4851	Urban Transit Systems	636	901	15	42	60	18
4859	Other Transit and Ground Passenger Transportation	386	629	15	26	42	16
4931	Warehousing and Storage	537	713	15	36	48	12
4853	Taxi and Limousine Service	342	442	15	23	29	7
4244	Grocery and Related Product Wholesalers	1,494	1,614	20	75	81	6
4231	Motor Vehicle and Motor Vehicle Parts and Supplies Merchant Wholesalers	695	777	20	35	39	4
5121	Motion Picture and Video Industries	643	804	60	11	13	3
8123	Drycleaning and Laundry Services	1,709	1,767	50	34	35	1
4245	Farm Product Raw Material Merchant Wholesalers	295	311	20	15	16	1
3118	Bakeries and Tortilla Manufacturing	429	441	30	14	15	0
4855	Charter Bus Industry	50	54	15	3	4	0
3379	Other Furniture Related Product Manufacturing	187	194	30	6	6	0
3131	Fiber, Yarn, and Thread Mills	5	5	30	0	0	0
3117	Seafood Product Preparation and Packaging	0	0	30	0	0	0
3151	Apparel Knitting Mills	0	0	30	0	0	0
3161	Leather and Hide Tanning and Finishing	0	0	30	0	0	0
3162	Footwear Manufacturing	0	0	30	0	0	0
3212	Veneer, Plywood, and Engineered Wood Product Manufacturing	0	0	30	0	0	0
3351	Electric Lighting Equipment Manufacturing	0	0	30	0	0	0
3122	Tobacco Manufacturing	3	3	30	0	0	0
3113	Sugar and Confectionery Product Manufacturing	9	8	30	0	0	0
3352	Household Appliance Manufacturing	2	1	30	0	0	0

Continued

TABLE 3.6
DEMAND CALCULATION 1
INDUSTRIAL DEMAND IN MINNEAPOLIS
2002 TO 2012
Continued

NAICS Code	NAICS Description	Minneapolis Est. 2002 Employment	Minneapolis Proj. 2012 Employment	Est. Employment Per Acre	Est. 2002 Acreage	Proj. 2012 Acreage	2002-2012 Change in Acreage
1114	Greenhouse, Nursery, and Floriculture Production	0	0	40	0	0	0
3132	Fabric Mills	15	11	30	0	0	0
3169	Other Leather and Allied Product Manufacturing	50	33	30	2	1	-1
3141	Textile Furnishings Mills	46	28	30	2	1	-1
3133	Textile and Fabric Finishing and Fabric Coating Mills	27	9	30	1	0	-1
3119	Other Food Manufacturing	126	105	30	4	4	-1
3152	Cut and Sew Apparel Manufacturing	82	55	30	3	2	-1
3149	Other Textile Product Mills	89	55	30	3	2	-1
3114	Fruit and Vegetable Preserving and Specialty Food Manufacturing	69	40	30	2	1	-1
3115	Dairy Product Manufacturing	474	445	30	16	15	-1
4249	Miscellaneous Nondurable Goods Merchant Wholesalers	385	362	20	19	18	-1
4852	Interurban and Rural Bus Transportation	146	121	15	10	8	-2
3159	Apparel Accessories and Other Apparel Manufacturing	102	45	30	3	1	-2
4922	Local Messengers and Local Delivery	592	553	15	39	37	-3
"Run of the Mill Industrial Employment" Total		**11,332**	**12,904**		**539**	**637**	**99**
Total Industrial Employment		**63,453**	**67,377**		**2,454**	**2,641**	**187**
Total New Industrial Acreage Demanded, 2002-2012						**187**	**Acres**

Source: Maxfield Research Inc.

Demand Calculation 2

- As with Demand Calculation 1, Demand Calculation 2 (shown in Table 3.8) organizes industries by industrial employment segment. However, for this calculation, the 2002 employment estimates and 2012 employment projections are for the Metro Area. The table shows projected employment changes for the Metro Area by four-digit NAICS.

- Employment-per-acre estimates are used from Table 2.1 to determine the estimated acreage for each four-digit industry in 2002 and 2012.

- Total acreage is summed across industrial employment segments to determine the total change in acreage driven by Metro Area employment growth. The projections show demand for six acres from 21st Century Job Industries, 1,058 acres for Opportunity Job Industries, and 519 acres for Legacy Job Industries. The total demand for the Metro Area is 1,583 acres between 2002 and 2012.

- In order to determine the demand for Minneapolis, a capture rate range of 10% to 15% is applied. These capture rates were determined by analyzing absorption trends for Minneapolis and the Metro Area between 1995 and 2005 in secondary market sources from the Minnesota Chapter of the National Association of Industrial and Office Properties (NAIOP), United Properties, and Colliers Turley Martin Tucker.

- Based on this analysis, the estimated demand for industrial acreage in Minneapolis is between 158 and 237 acres between 2002 and 2012.

- Unlike Demand Calculation 1, Demand Calculation 2 accounts for new industrial demand that may be generated outside the City and may be attracted to new industrial acreage in Minneapolis, while also accounting for employment growth that may be created within the City.

TABLE 3.7
DEMAND CALCULATION 2
INDUSTRIAL DEMAND IN MINNEAPOLIS
2002 TO 2012

NAICS Code	NAICS Description	Metro Area Est. 2002 Employment	Metro Area Proj. 2012 Employment	Est. Employment Per Acre	Est. 2002 Acreage	Proj. 2012 Acreage	2002-2012 Change in Acreage
	"21st Century Industrial Employment"						
4234	Professional and Commercial Equipment and Supplies Merchant Wholesalers	12,788	13,811	20	639	691	51
3345	Navigational, Measuring, Electromedical, and Control Instruments Manufacturing	15,204	16,436	30	507	548	41
3254	Pharmaceutical and Medicine Manufacturing	2,187	3,091	30	73	103	30
5417	Scientific Research and Development Services	5,879	7,484	60	98	125	27
5413	Architectural, Engineering, and Related Services	20,328	21,074	60	339	351	12
3342	Communications Equipment Manufacturing	3,456	3,638	30	115	121	6
5179	Other Telecommunications	967	1,256	60	16	21	5
2372	Land Subdivision	597	664	30	20	22	2
5172	Wireless Telecommunications Carriers (except Satellite)	967	1,085	60	16	18	2
5173	Telecommunications Resellers	967	989	60	16	16	0
5122	Sound Recording Industries	327	342	60	5	6	0
3365	Railroad Rolling Stock Manufacturing	4	4	30	0	0	0
3346	Manufacturing and Reproducing Magnetic and Optical Media	1,673	1,575	30	56	53	-3
3364	Aerospace Product and Parts Manufacturing	635	491	30	21	16	-5
5111	Newspaper, Periodical, Book, and Directory Publishers	14,095	13,729	60	235	229	-6
5174	Satellite Telecommunications	967	568	60	16	9	-7
5171	Wired Telecommunications Carriers	6,367	5,618	60	106	94	-12
3344	Semiconductor and Other Electronic Component Manufacturing	7,224	5,598	30	241	187	-54
3341	Computer and Peripheral Equipment Manufacturing	6,272	3,759	30	209	125	-84
"21st Century Industrial Employment" Total		**100,903**	**101,213**		**2,729**	**2,735**	**6**

Continued

TABLE 3.7
DEMAND CALCULATION 2
INDUSTRIAL DEMAND IN MINNEAPOLIS
2002 TO 2012
Continued

NAICS Code	NAICS Description	Metro Area Est. 2002 Employment	Metro Area Proj. 2012 Employment	Est. Employment Per Acre	Est. 2002 Acreage	Proj. 2012 Acreage	2002-2012 Change in Acreage
	"Opportunity Industrial Employment"						
2382	Building Equipment Contractors	21,752	26,045	30	725	868	143
4841	General Freight Trucking	8,246	9,758	15	550	651	101
2381	Foundation, Structure, and Building Exterior Contractors	11,523	14,284	30	384	476	92
2383	Building Finishing Contractors	11,766	14,414	30	392	480	88
3391	Medical Equipment and Supplies Manufacturing	11,303	13,796	30	377	460	83
4236	Electrical and Electronic Goods Merchant Wholesalers	5,805	7,028	20	290	351	61
3219	Other Wood Product Manufacturing	6,070	7,894	30	202	263	61
3261	Plastics Product Manufacturing	10,439	12,079	30	348	403	55
4251	Wholesale Electronic Markets and Agents and Brokers	11,737	12,650	20	587	633	46
2362	Nonresidential Building Construction	8,653	9,965	30	288	332	44
4237	Hardware, and Plumbing and Heating Equipment and Supplies Merchant Wholesalers	3,600	4,384	20	180	219	39
2361	Residential Building Construction	8,807	9,970	30	294	332	39
4885	Freight Transportation Arrangement	1,979	2,534	15	132	169	37
4238	Machinery, Equipment, and Supplies Merchant Wholesalers	9,184	9,823	20	459	491	32
3339	Other General Purpose Machinery Manufacturing	6,127	7,072	30	204	236	32
2389	Other Specialty Trade Contractors	4,922	5,724	30	164	191	27
4842	Specialized Freight Trucking	2,592	2,969	15	173	198	25
3335	Metalworking Machinery Manufacturing	3,630	4,218	30	121	141	20
4233	Lumber and Other Construction Materials Merchant Wholesalers	3,097	3,428	20	155	171	17

Continued

TABLE 3.7
DEMAND CALCULATION 2
INDUSTRIAL DEMAND IN MINNEAPOLIS
2002 TO 2012
Continued

NAICS Code	NAICS Description	Metro Area Est. 2002 Employment	Metro Area Proj. 2012 Employment	Est. Employment Per Acre	Est. 2002 Acreage	Proj. 2012 Acreage	2002-2012 Change in Acreage
4235	Metal and Mineral (except Petroleum) Merchant Wholesalers	1,984	2,279	20	99	114	15
3372	Office Furniture (including Fixtures) Manufacturing	2,037	2,477	30	68	83	15
3334	Ventilation, Heating, Air-Conditioning, and Commercial Refrigeration Equipment Manufacturing	4,207	4,618	30	140	154	14
3333	Commercial and Service Industry Machinery Manufacturing	3,202	3,612	30	107	120	14
4854	School and Employee Bus Transportation	5,684	5,888	15	379	393	14
3273	Cement and Concrete Product Manufacturing	1,803	2,204	30	60	73	13
5175	Cable and Other Program Distribution	2,107	2,901	60	35	48	13
4242	Drugs and Druggists' Sundries Merchant Wholesalers	1,640	1,891	20	82	95	13
4241	Paper and Paper Product Merchant Wholesalers	2,242	2,492	20	112	125	12
5629	Remediation and Other Waste Management Services	1,178	1,795	50	24	36	12
4882	Support Activities for Rail Transportation	594	744	15	40	50	10
4246	Chemical and Allied Products Merchant Wholesalers	1,225	1,418	20	61	71	10
5621	Waste Collection	1,623	2,085	50	32	42	9
2371	Utility System Construction	2,398	2,673	30	80	89	9
5324	Commercial and Industrial Machinery and Equipment Rental and Leasing	1,783	1,961	20	89	98	9
4248	Beer, Wine, and Distilled Alcoholic Beverage Merchant Wholesalers	1,393	1,560	20	70	78	8
4889	Other Support Activities for Transportation	89	212	15	6	14	8
4239	Miscellaneous Durable Goods Merchant Wholesalers	2,700	2,846	20	135	142	7
3366	Ship and Boat Building	180	386	30	6	13	7

Continued

TABLE 3.7
DEMAND CALCULATION 2
INDUSTRIAL DEMAND IN MINNEAPOLIS
2002 TO 2012
Continued

NAICS Code	NAICS Description	Metro Area Est. 2002 Employment	Metro Area Proj. 2012 Employment	Est. Employment Per Acre	Est. 2002 Acreage	Proj. 2012 Acreage	2002-2012 Change in Acreage
3371	Household and Institutional Furniture and Kitchen Cabinet Manufacturing	2,981	3,179	30	99	106	7
8113	Commercial and Industrial Machinery and Equipment (except Automotive and Electronic) Repair and Maintenance	1,112	1,417	50	22	28	6
3353	Electrical Equipment Manufacturing	2,370	2,520	30	79	84	5
3369	Other Transportation Equipment Manufacturing	412	550	30	14	18	5
3326	Spring and Wire Product Manufacturing	665	790	30	22	26	4
4232	Furniture and Home Furnishing Merchant Wholesalers	2,349	2,426	20	117	121	4
4884	Support Activities for Road Transportation	762	817	15	51	54	4
3255	Paint, Coating, and Adhesive Manufacturing	1,171	1,260	30	39	42	3
3322	Cutlery and Handtool Manufacturing	651	732	30	22	24	3
3111	Animal Food Manufacturing	300	342	30	10	11	1
3271	Clay Product and Refractory Manufacturing	74	111	30	2	4	1
3336	Engine, Turbine, and Power Transmission Equipment Manufacturing	720	753	30	24	25	1
3241	Petroleum and Coal Products Manufacturing	1,610	1,642	30	54	55	1
3313	Alumina and Aluminum Production and Processing	309	339	30	10	11	1
2212	Natural Gas Distribution	1,466	1,500	40	37	37	1
3252	Resin, Synthetic Rubber, and Artificial Synthetic Fibers and Filaments Manufacturing	156	175	30	5	6	1
2213	Water, Sewage and Other Systems	184	201	40	5	5	0
3312	Steel Product Manufacturing from Purchased Steel	451	460	30	15	15	0
3274	Lime and Gypsum Product Manufacturing	8	8	30	0	0	0
3251	Basic Chemical Manufacturing	535	535	30	18	18	0
4821	Rail Transportation	0	0	15	0	0	0

Continued

TABLE 3.7
DEMAND CALCULATION 2
INDUSTRIAL DEMAND IN MINNEAPOLIS
2002 TO 2012
Continued

NAICS Code	NAICS Description	Metro Area Est. 2002 Employment	Metro Area Proj. 2012 Employment	Est. Employment Per Acre	Est. 2002 Acreage	Proj. 2012 Acreage	2002-2012 Change in Acreage
4883	Support Activities for Water Transportation	23	19	15	2	1	0
3279	Other Nonmetallic Mineral Product Manufacturing	124	114	30	4	4	0
3262	Rubber Product Manufacturing	733	722	30	24	24	0
3315	Foundries	2,314	2,303	30	77	77	0
3314	Nonferrous Metal (except Aluminum) Production and Processing	553	539	30	18	18	0
3331	Agriculture, Construction, and Mining Machinery Manufacturing	2,125	2,109	30	71	70	-1
3211	Sawmills and Wood Preservation	100	84	30	3	3	-1
3325	Hardware Manufacturing	92	68	30	3	2	-1
3221	Pulp, Paper, and Paperboard Mills	325	301	30	11	10	-1
3343	Audio and Video Equipment Manufacturing	183	155	30	6	5	-1
2379	Other Heavy and Civil Engineering Construction	427	396	30	14	13	-1
3253	Pesticide, Fertilizer, and Other Agricultural Chemical Manufacturing	115	81	30	4	3	-1
3259	Other Chemical Product and Preparation Manufacturing	1,888	1,845	30	63	62	-1
3321	Forging and Stamping	2,509	2,465	30	84	82	-1
3323	Architectural and Structural Metals Manufacturing	5,043	4,996	30	168	167	-2
3361	Motor Vehicle Manufacturing	1,587	1,531	30	53	51	-2
5622	Waste Treatment and Disposal	332	223	50	7	4	-2
3311	Iron and Steel Mills and Ferroalloy Manufacturing	408	339	30	14	11	-2
3362	Motor Vehicle Body and Trailer Manufacturing	521	439	30	17	15	-3
3112	Grain and Oilseed Milling	673	565	30	22	19	-4
4832	Inland Water Transportation	720	665	15	48	44	-4
3399	Other Miscellaneous Manufacturing	3,454	3,323	30	115	111	-4

Continued

TABLE 3.7
DEMAND CALCULATION 2
INDUSTRIAL DEMAND IN MINNEAPOLIS
2002 TO 2012
Continued

NAICS Code	NAICS Description	Metro Area Est. 2002 Employment	Metro Area Proj. 2012 Employment	Est. Employment Per Acre	Est. 2002 Acreage	Proj. 2012 Acreage	2002-2012 Change in Acreage
3324	Boiler, Tank, and Shipping Container Manufacturing	1,624	1,490	30	54	50	-4
3328	Coating, Engraving, Heat Treating, and Allied Activities	2,434	2,292	30	81	76	-5
4243	Apparel, Piece Goods, and Notions Merchant Wholesalers	888	780	20	44	39	-5
3121	Beverage Manufacturing	1,745	1,577	30	58	53	-6
4247	Petroleum and Petroleum Products Merchant Wholesalers	476	363	20	24	18	-6
2211	Electric Power Generation, Transmission and Distribution	4,975	4,696	40	124	117	-7
3256	Soap, Cleaning Compound, and Toilet Preparation Manufacturing	1,703	1,443	30	57	48	-9
3327	Machine Shops; Turned Product; and Screw, Nut, and Bolt Manufacturing	7,408	7,131	30	247	238	-9
3359	Other Electrical Equipment and Component Manufacturing	1,990	1,673	30	66	56	-11
2373	Highway, Street, and Bridge Construction	5,929	5,612	30	198	187	-11
3272	Glass and Glass Product Manufacturing	700	377	30	23	13	-11
3363	Motor Vehicle Parts Manufacturing	1,228	795	30	41	27	-14
3332	Industrial Machinery Manufacturing	2,905	2,449	30	97	82	-15
3231	Printing and Related Support Activities	19,800	19,296	30	660	643	-17
3222	Converted Paper Product Manufacturing	6,821	6,305	30	227	210	-17
4911	Postal Service	10,764	10,331	15	718	689	-29
3329	Other Fabricated Metal Product Manufacturing	5,461	4,449	30	182	148	-34
"Opportunity Industrial Employment" Total		**308,687**	**336,174**		**12,026**	**13,084**	**1,058**

Continued

TABLE 3.7
DEMAND CALCULATION 2
INDUSTRIAL DEMAND IN MINNEAPOLIS
2002 TO 2012
Continued

NAICS Code	NAICS Description	Metro Area Est. 2002 Employment	Metro Area Proj. 2012 Employment	Est. Employment Per Acre	Est. 2002 Acreage	Proj. 2012 Acreage	2002-2012 Change in Acreage
	"Run of the Mill Industrial Employment"						
4921	Couriers	6,669	9,291	15	445	619	175
4931	Warehousing and Storage	6,905	9,173	15	460	612	151
4859	Other Transit and Ground Passenger Transportation	3,400	5,538	15	227	369	143
4244	Grocery and Related Product Wholesalers	10,008	10,809	20	500	540	40
4851	Urban Transit Systems	1,229	1,739	15	82	116	34
4231	Motor Vehicle and Motor Vehicle Parts and Supplies Merchant Wholesalers	4,967	5,555	20	248	278	29
5121	Motion Picture and Video Industries	3,425	4,285	60	57	71	14
4853	Taxi and Limousine Service	632	817	15	42	54	12
4245	Farm Product Raw Material Merchant Wholesalers	1,723	1,814	20	86	91	5
3118	Bakeries and Tortilla Manufacturing	4,063	4,177	30	135	139	4
3212	Veneer, Plywood, and Engineered Wood Product Manufacturing	444	552	30	15	18	4
8123	Drycleaning and Laundry Services	4,068	4,206	50	81	84	3
4855	Charter Bus Industry	390	418	15	26	28	2
3379	Other Furniture Related Product Manufacturing	567	589	30	19	20	1
3131	Fiber, Yarn, and Thread Mills	4	5	30	0	0	0
3117	Seafood Product Preparation and Packaging	0	0	30	0	0	0
3151	Apparel Knitting Mills	15	15	30	0	0	0
3162	Footwear Manufacturing	15	15	30	0	0	0
3122	Tobacco Manufacturing	0	0	30	0	0	0
3161	Leather and Hide Tanning and Finishing	154	141	30	5	5	0
3169	Other Leather and Allied Product Manufacturing	46	30	30	2	1	-1
3351	Electric Lighting Equipment Manufacturing	161	134	30	5	4	-1
3132	Fabric Mills	135	104	30	5	3	-1

Continued

TABLE 3.7
DEMAND CALCULATION 2
INDUSTRIAL DEMAND IN MINNEAPOLIS
2002 TO 2012
Continued

NAICS Code	NAICS Description	Metro Area Est. 2002 Employment	Metro Area Proj. 2012 Employment	Est. Employment Per Acre	Est. 2002 Acreage	Proj. 2012 Acreage	2002-2012 Change in Acreage
4852	Interurban and Rural Bus Transportation	110	91	15	7	6	-1
3141	Textile Furnishings Mills	158	97	30	5	3	-2
3113	Sugar and Confectionery Product Manufacturing	1,086	994	30	36	33	-3
3152	Cut and Sew Apparel Manufacturing	325	217	30	11	7	-4
3115	Dairy Product Manufacturing	2,141	2,010	30	71	67	-4
4922	Local Messengers and Local Delivery	997	932	15	66	62	-4
3352	Household Appliance Manufacturing	210	78	30	7	3	-4
3133	Textile and Fabric Finishing and Fabric Coating Mills	263	89	30	9	3	-6
3159	Apparel Accessories and Other Apparel Manufacturing	326	143	30	11	5	-6
1114	Greenhouse, Nursery, and Floriculture Production	2,002	1,696	40	50	42	-8
3149	Other Textile Product Mills	598	367	30	20	12	-8
3119	Other Food Manufacturing	1,759	1,468	30	59	49	-10
4249	Miscellaneous Nondurable Goods Merchant Wholesalers	3,609	3,396	20	180	170	-11
3114	Fruit and Vegetable Preserving and Specialty Food Manufacturing	1,709	999	30	57	33	-24
"Run of the Mill Industrial Employment" Total		**64,310**	**71,981**		**3,032**	**3,551**	**519**
Total Industrial Employment		**473,900**	**509,368**		**17,787**	**19,369**	**1,583**
(times) Estimated capture rate					10% - 15%		
(equals) Estimated demand for inudustrial acreage in the City of Minneapolis, 2002 to 2012					**158 - 237**	**Acres**	

Source: Maxfiled Research Inc.

Introduction

The section below quantifies and analyzes how much industrial properties contribute in property tax revenue to the City of Minneapolis. The analysis also looks at the combined market value of industrial parcels in Minneapolis relative to industrial sites in other Metro Area cities. Finally, this section presents our estimates of the property tax impacts associated with industrial-to-residential conversions in Minneapolis.

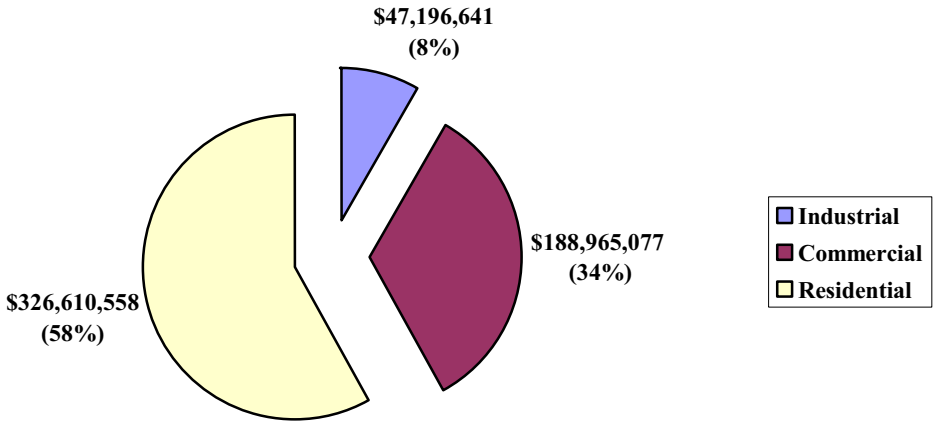
Property Tax Revenue in Minneapolis

Maxfield Research Inc. examined 2004 property tax revenue data provided by the City of Minneapolis Assessor's Office. The pie chart below illustrates the distribution of property tax revenue by use. Key points are below.

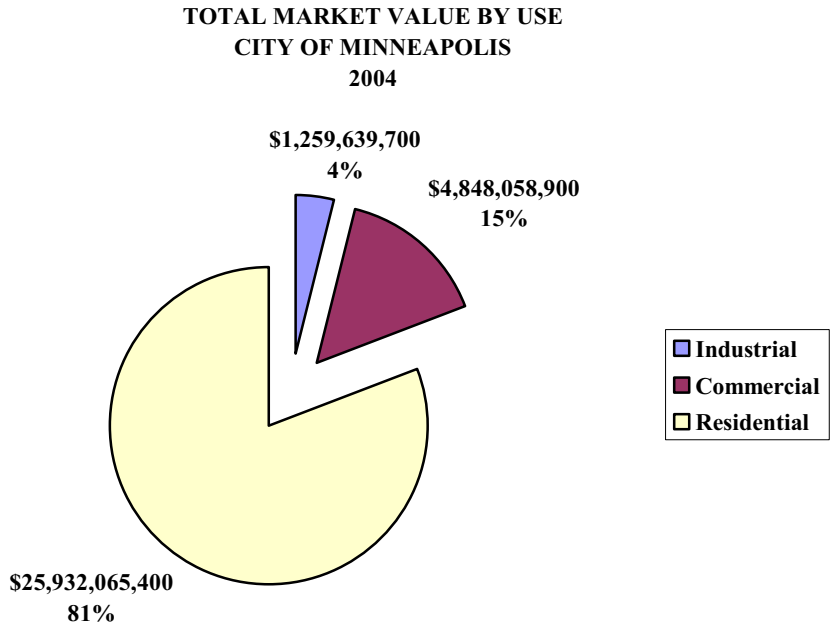
- Industrial property tax revenue makes up the smallest portion of the City's overall property tax revenue. In 2004, industrial users paid $47 million in property taxes, which represents 8% of the total $563 million in property taxes paid.

- Property tax payments from residential uses, in contrast, make up the largest part of the City's incoming tax revenue. Fifty-eight percent of the total property tax revenue comes from residential parcels. Commercial property tax revenue comprises the remaining 34%.

PROPERTY TAX REVENUE BY USE
CITY OF MINNEAPOLIS
2004



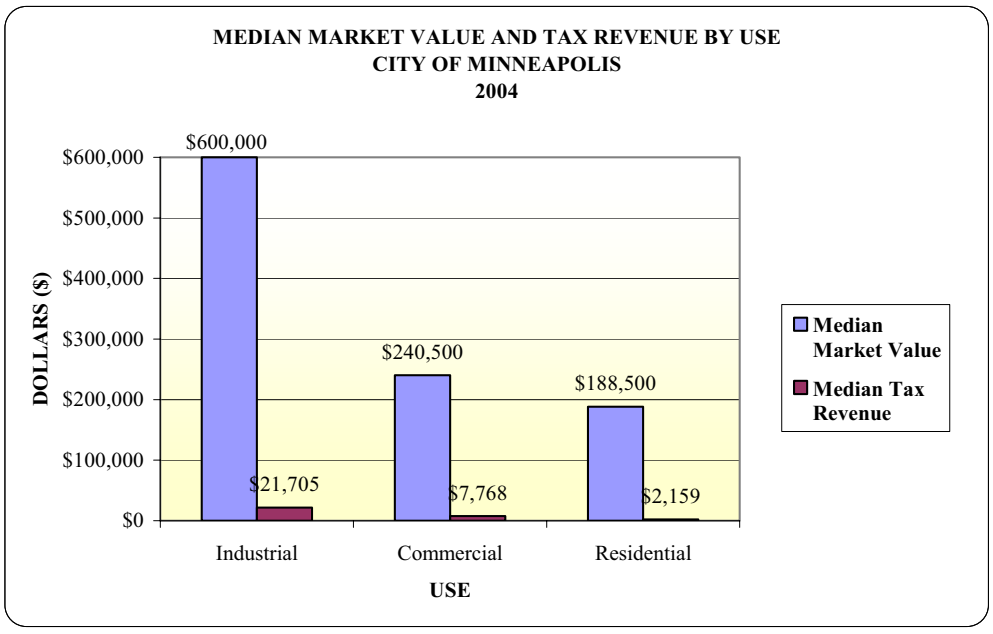
Total 2004 Tax Revenue: $563,772,277



Total 2004 Market Value: $32,039,764,000

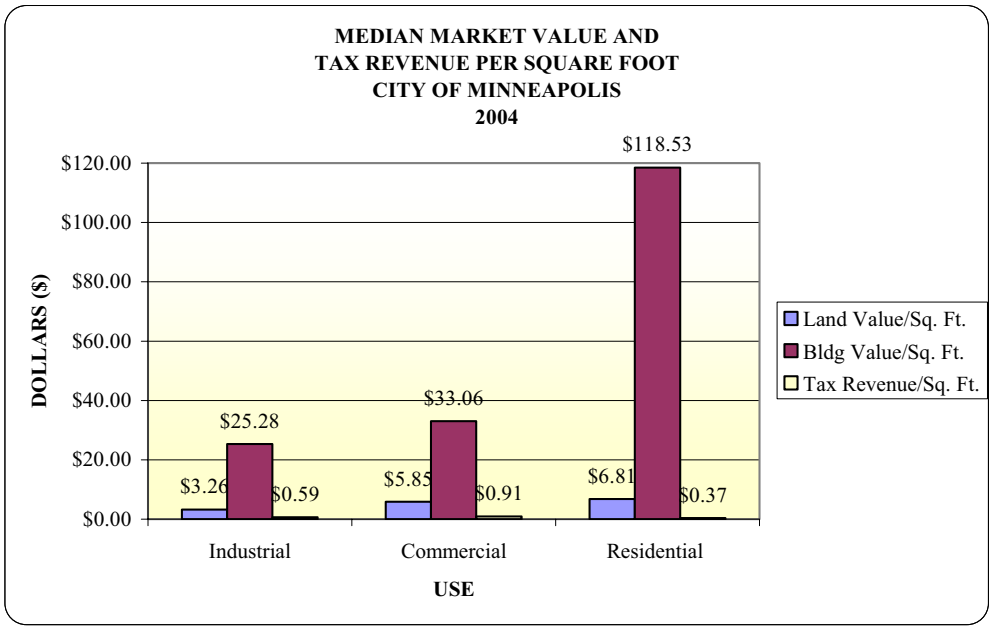
Median market value and tax payment for industrial properties in Minneapolis are higher than for residential and commercial parcels. The chart below presents the median market value and tax payments by use. Key points follow.

- The median combined land and building value among industrial properties in Minneapolis was $600,000 respectively. The median 2004 tax payment among industrial users was $21,705.



- Commercial properties show a median total market value of $240,500 and tax payment of $7,768. The median land and building value among residential parcels in 2004 was $188,500. The median residential tax payment was $2,159. Industrial properties likely show a greater market value and taxes payment because of their large size.

- Taking land and building size into account, residential uses show significantly greater market values per square foot than industrial uses, especially building value. As shown in the chart on the next page, the median industrial building value is $3.26 per square foot and the median residential building value is $118.53 per square foot.



- Industrial properties, in fact, contribute more tax revenue per square foot than residential properties. The median tax payment per square foot for industrial users is $0.22 higher than residential. The higher median building value per square foot among residential parcels does not translate to a higher property tax payment.

- The higher median tax payment generated on industrial property is because industrial land use is still taxed at a higher effective tax rate. Table 4.1 on the next page compares the effective tax rate of $300,000 residential and industrial property. In the end, the residential property pays an effective tax rate of 1.49% and the industrial property pays 3.50%. Despite the 2001 state tax reform, industrial users generally share a greater portion of the tax burden than residential users.

TABLE 4.1
PROPERTY TAX PAYMENT EXAMPLE
MINNEAPOLIS, 2004

Land Use		Residential Homestead			Industrial		
Market Value	=	$300,000		=	$300,000		
					$150,000	$150,000	
Baseline State Tax Rate	x	1.00%		x	1.50%	2%	
					$2,250	$3,000	
Net Tax Capacity	=	$3,000			$5,250		
Local Ext. Rate		136%	(1.36)		136%	(1.36)	
Addt. Local Levies	+	13%	(0.13)	+	13%	(0.13)	
Total Ext. Rate	=	149%	(1.49)	=	149%	(1.49)	
State Tax	+	---		+	51%		
Net Tax	=	149%	(1.49)	=	200%	(2.00)	
Tax Payment	=	$4,470		=	$10,500		
Effective Tax Rate	=	1.49%		=	3.50%		

Source: Maxfield Research Inc.

Summary

Tax payments on residential properties make up the majority of tax revenue in Minneapolis; however the City relies on industrial sites for significant tax revenue. Industrial properties contribute more tax revenue per square foot than residential uses. Even though residential market value per square foot is significantly higher than for industrial parcels, homeowners and apartment owners pay less on a square foot basis.

Since industrial sites continue to provide an important tax revenue source to the City, especially on a per square foot basis, it's important to gauge how industrial parcels in Minneapolis are performing relative to industrial parcels in other cities.

Market Value of Industrial Land: Minneapolis vs. Twin Cities Metro Area

Total industrial market value is an indicator of how the market appraises industrial properties in Minneapolis relative to surrounding cities in the Twin Cities Metro Area. Total industrial market value is the sum of the assessed values of all industrially-used parcels in a city. So a comparison of Minneapolis' growth in total industrial market value and other metro cities' growth will give an idea about which cities are increasing in industrial acreage, and possibly where new industrial product is locating.

Data on market value covers a period between 1999 and 2004 and is provided by the Minnesota Department of Revenue. Data on total market value are displayed in Tables 4.2 through 4.4. Key points follow.

- Minneapolis industrial parcels have the largest total market value among all cities in the Metro Area in 1999 and 2004. Minneapolis had a total industrial market value of $841 million and $1.14 billion in 1999 and 2004 respectively.

TABLE 4.2
LARGEST INDUSTRIAL MARKET VALUE
AMONG CITIES IN TWIN CITIES METRO REGION
1999-2004

City	1999 Market Value[1]	%	2004 Market Value	%	99-04 Change	99-04 Change (%)
Minneapolis	$840,599,011	10.4%	$1,145,359,368	11.8%	$304,760,357	41.1
Plymouth	$758,367,315	9.4%	$743,480,433	7.6%	-$14,886,882	-2.2
Bloomington	$521,845,579	6.4%	$596,184,633	6.1%	$74,339,054	16.1
St Paul	$398,109,115	4.9%	$553,640,700	5.7%	$155,531,585	44.3
Eden Prairie	$522,772,998	6.5%	$512,046,433	5.3%	-$10,726,565	-2.3
Brooklyn Park	$292,549,171	3.6%	$423,919,333	4.4%	$131,370,162	50.9
Maple Grove	$277,030,815	3.4%	$419,425,133	4.3%	$142,394,318	58.2
Fridley	$303,254,677	3.7%	$387,796,699	4.0%	$84,542,022	31.6
Shakopee	$191,436,298	2.4%	$315,799,633	3.2%	$124,363,335	73.6
Blaine	$168,320,700	2.1%	$274,792,966	2.8%	$106,472,266	71.7
St Louis Park	$208,510,370	2.6%	$240,428,466	2.5%	$31,918,096	17.3
Eagan	$287,975,862	3.6%	$238,313,899	2.4%	-$49,661,963	-19.5
Maplewood	$294,822,518	3.6%	$235,917,167	2.4%	-$58,905,351	-22.6
Minnetonka	$278,418,322	3.4%	$225,143,100	2.3%	-$53,275,222	-21.7
Golden Valley	$181,233,775	2.2%	$221,928,000	2.3%	$40,694,225	25.4
New Hope	$193,329,455	2.4%	$206,747,000	2.1%	$13,417,545	7.9
Burnsville	$173,348,214	2.1%	$177,946,500	1.8%	$4,598,286	3.0
Edina	$178,703,459	2.2%	$172,343,400	1.8%	-$6,360,059	-4.0
Coon Rapids	$153,081,262	1.9%	$168,533,633	1.7%	$15,452,371	11.4
Roseville	$110,678,775	1.4%	$155,883,100	1.6%	$45,204,325	46.3
Metro Area Total	$7,142,277,450	100.0%	$9,738,187,721	100.0%	$2,595,910,271	36.3

[1] = 2004 dollars

Souce: Minnesota Department of Revenue
Maxfield Research

- Minneapolis gained a larger share of the total market value of Metro Area industrial parcels in the 1999-2004 period. Minneapolis increased from 10.4% to 11.8% of the total $9.7 billion. Minneapolis' position with the largest total market value and percentage share of Metro Area cities are attributable to the City's large amount of industrial acreage.

- The next highest cities were Plymouth, Bloomington, and St. Paul with total values at $743 million, $596 million, and $553 million respectively.

- Minneapolis posted steady growth in value between 1999 and 2004. The market value of industrial parcels increased by over $300 million (+41.1%).

- Among the cities in Table 4.2, Shakopee and Blaine show substantial and relatively fast growth with $124 million in added value (+73.6%) and $106 million in added value (+71.70%) respectively. Maple Grove is also significantly increasing. Maple Grove increased in market value by $142 million or +58.2%.

Quantity of Industrial Land

As shown in Table 4.3, Minneapolis' position as the city with the largest total industrial market value is partially a function of the large amount of industrial land in the City. Maxfield Research Inc. obtained 1997 and 2000 land use acreage from the Metropolitan Council.

- Minneapolis had the largest amount of industrial land, 4,599 acres, in 2000. St. Paul is ranked close behind with 4,520 acres of industrial land. Blaine, Maple Grove, and Eden Prairie had 2,395, 2,127, and 1,788 acres respectively.

- The central cities of Minneapolis and St. Paul decreased in industrial land between 1997 and 2000. Minneapolis lost -47 (-1.0%) acres and St. Paul lost -142 acres (-3.0%).

- Suburban cities such as Eagan, Rosemount, and St. Francis added large amounts of industrial land during those three years. Rosemount and Eagan increased by 435 acres (+38.0%) and 354 acres (+26.9%). St. Francis added 1,014 acres for a percentage increase of +492.2%.

TABLE 4.3
INDUSTRIAL LAND ACREAGE
TOP 20 CITIES IN TWIN CITIES METRO AREA
1997-2000

	Acreage			
City	1997	2000	Change	Change (%)
Minneapolis	4,646	4,599	-47	-1.0
St Paul	4,662	4,520	-142	-3.0
Blaine	2,346	2,395	49	2.1
Maple Grove	2,168	2,127	-41	-1.9
Eden Prairie	1,721	1,788	67	3.9
Eagan	1,317	1,671	354	26.9
Plymouth	1,680	1,671	-9	-0.5
Rosemount	1,145	1,580	435	38.0
Fridley	1,297	1,548	251	19.4
Burnsville	1,191	1,328	137	11.5
St Francis	206	1,220	1,014	492.2
Shakopee	1,335	1,166	-169	-12.7
Arden Hills	1,223	1,142	-81	-6.6
Bloomington	1,213	1,097	-116	-9.6
Inver Grove Heights	934	1,027	93	10.0
Lakeville	947	1,007	60	6.3
Roseville	942	974	32	3.4
Cottage Grove	1,094	967	-127	-11.6
Brooklyn Park	850	966	116	13.6
Brooklyn Center	850	966	116	13.6

Source: Metropolitan Council
Maxfield Research

Market Value of Industrial Land per Acre

Since the City's $1.14 billion total market value in 2004 is partially explained by the large amount of industrial land in the city, examining value per acre leads to a more accurate picture of how the market responds to industrial sites in the City. As shown in Table 4.4, Minneapolis' market value per acre is among the lower-third of cities with a total market value over $100 million.

- Maplewood shows the largest industrial market value per acre with $650,396. Bloomington and Plymouth show market values per acre of $488,241 and $479,862 respectively. Edina is fourth with a market value per acre of $454,927. Chanhassen is fifth with $420,128 in market value per acre.

- Minneapolis has an industrial market value per acre of $207,402. Minneapolis likely contains a larger number of older, vacant, and less-valuable industrial properties than surrounding cities in the Metro Area, which depresses the City's industrial market value per acre.

- The extent to which market value per acre is driven by land or building value may vary. Bloomington's $488,241 market value per might stem from a high concentration of new construction buildings and premium locations along the I-494 corridor. Rogers, further outside the Metro Area, might derive its high market value per acre from the quantity of new facilities rather than the underlying price of land. However, our data does not disaggregate or explain the causes behind higher or lower market value per acre.

TABLE 4.4
LARGEST INDUSTRIAL MARKET VALUE PER ACRE AMONG CITIES WITH MARKET VALUE ABOVE $50M IN TWIN CITIES METRO AREA
2000

City	2000 Market Value[1]	2000 Acreage	2000 MV/Acre
Maplewood	$311,539,712	479	$650,396
Bloomington	$535,600,561	1,097	$488,241
Plymouth	$801,849,172	1,671	$479,862
Edina	$180,151,132	396	$454,927
Chanhassen	$145,784,416	347	$420,128
New Hope	$205,257,236	535	$383,658
St Louis Park	$221,915,637	598	$371,096
Minnetonka	$253,621,396	697	$363,876
Golden Valley	$200,553,714	590	$339,922
Brooklyn Park	$319,484,687	966	$330,729
Eden Prairie	$585,877,212	1,788	$327,672
Hopkins	$145,386,635	444	$327,447
Chaska	$150,335,914	510	$294,776
Shakopee	$290,018,035	1,166	$248,729
Anoka	$118,974,222	503	$236,529
Coon Rapids	$158,033,128	673	$234,819
Rogers	$61,639,453	269	$229,143
Fridley	$331,419,472	1,548	$214,095
Minneapolis	$954,208,422	4,599	$207,482
Ramsey	$79,670,034	456	$174,715
Eagan	$269,974,921	1,671	$161,565
Maple Grove	$315,910,478	2,127	$148,524
Burnsville	$182,891,257	1,328	$137,719
Roseville	$131,165,679	974	$134,667
St Paul	$477,426,873	4,520	$105,625
Lakeville	$106,304,944	1,007	$105,566
Brooklyn Center	$90,516,580	966	$93,702
Blaine	$195,538,319	2,395	$81,644
Rosemount	$109,744,367	1,580	$69,458
Arden Hills	$77,759,976	1,142	$68,091

[1] = 2004 dollars.

Source: Minnesota Department of Revenue
Maxfield Research Inc.

Summary

It appears that Minneapolis industrial parcels are valued less per acre than industrial properties in other Metro Area cities. Minneapolis still has the largest acreage of industrial parcels. Combined, these parcels also show the highest total market value. However, Minneapolis ranks low among Metro Area cities in industrial market value per acre. Minneapolis' product mix is likely older and less functional than newer industrial developments in a number of cities. Suburban cities like Maplewood and Bloomington, as well as exurban cities like Rogers, show a higher market value per acre and have higher concentrations of new high-end industrial developments.

With an older and lower-end product mix, industrial areas close to the Downtown core have been tapped for industrial-to-residential conversions, turning older multi-story brick warehouse buildings to residential loft space. In that light, our research next quantifies the tax and economic effects of industrial-to-residential conversion projects taking place in Minneapolis.

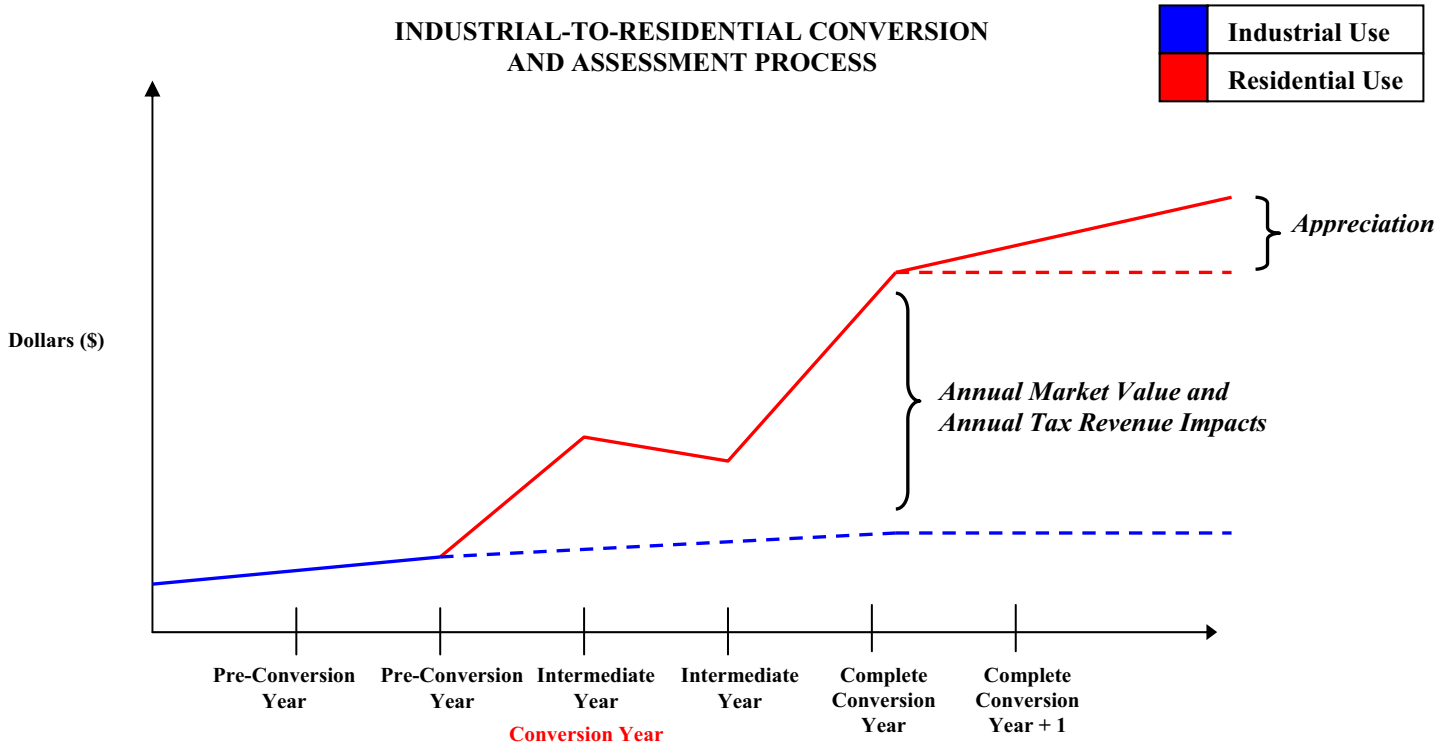
Property Tax Impact of Industrial-to-Residential Conversions in Minneapolis

The following section analyzes the implications of recent developments that convert land and/or buildings from industrial use to residential use. As the central city condominium market has expanded over the last five years, conversion developments have drawn the attention of policy-makers and local media. To inform that public discussion, our research set out to quantify the property tax effects of recent conversions.

Methodology

Conversion developments lead to two major impacts: annual tax base impact and annual tax revenue impact. The annual implications of the conversion are captured by comparing the tax base (market value) and tax revenue in the pre-conversion year and complete conversion year. Any appreciation in value after conversion, and future tax gains, reflect the condominium building's continued presence in the marketplace and not the conversion.

The graph below illustrates the annual tax impacts. The x-axis shows each time period in the conversion and the y-axis is in dollars. The annual market value and tax revenue impacts are found by deducting the forecasted industrial value from the complete conversion year value as a residential property. The graph also illustrates how the intermediate tax revenue impact is temporary and the annual tax base and revenue impacts continue through the parcel's life. The annual market value and tax revenue impacts are substantially greater because they will continue annually until the market declines dramatically or the building changes use again.



Selected Projects

Industrial conversions are taking place, but not to a large-scale extent. Maxfield Research identified and examined fifteen conversion projects. A list of the selected projects and addresses is shown in Table 4.5 below.

The overwhelming majority of these projects are located in Downtown Minneapolis because the multistory buildings are functionally obsolete as industrial and offer premium architectural qualities. In addition, many converted buildings command higher price points because of the close proximity to the Mississippi River and retailers along Nicollet Mall.

The market demand driving conversion projects does not automatically carry over to industrial areas throughout Minneapolis. First, few industrial areas outside of downtown can command the same premium price points. Shoreham Yards does not attract condominium buyers like the North Loop neighborhood. Second, many of the buildings are not obsolete and do not offer the same architectural features. Third, even if a building requires investment, the market fundamentals at many industrial sites are strong enough to reposition a site in the market (see Sections 2.2 and 2.5).

Even so, the following fifteen industrial conversion projects were examined to better understand their tax implications.

TABLE 4.5
INDUSTRIAL-TO-RESIDENTIAL CONVERSION PROJECTS
CITY OF MINNEAPOLIS
2002-2005

Project	Address	Initial Conversion Year
212 Lofts	212 1st Street N	2004
607 Washington Lofts	607 Washington Avenue	2004
801 Washington	801 Washington Avenue N	2002
918 Lofts	918 3rd Street N	2005
1901 Lofts	1901 Hennepin Avenue E	2005
American Trio Lofts	616 3rd Street S	2005
Bassett Creek Lofts	901 3rd Street N	2003
Bookmen Lofts	525 3rd Street N	2004
CW Lofts	730 Stinson Boulevard	2004
Madison Lofts	1701 Madison Street NE	2005
Mill Trace Condominiums	619 8th Street SE	2005
Riverview	2313 West River Road	2004
Security Lofts	404 Washington Avenue N	2004
Stone Arch Apartments	106 6th Avenue SE/625 Main St SE	2000
Tower Lofts	700 Washington Avenue N	2004

Source: Maxfield Research Inc.

Market value data is not available for 710 Lofts, 720 Lofts, and Bookmen Stacks because these projects are being assigned new property identification numbers. As such, the annual tax payment for these projects is not estimated.

It is also important to note that all of the condominium and townhome projects in the Mill District and east of 2nd Street North in the North Loop neighborhood were formerly zoned for commercial use. These developments are not included in the analysis.

Conversions Increase the Tax Base and Shift Tax Revenue

Table 4.6 below displays the tax base increase and tax revenue shift that takes place at the selected industrial-to-residential conversion sites.

- Conversions add significant value to the parcels. Among the 15 projects, the increases in market value range from $6.9 million to $43.7 million. As a percentage, the increases range from 5.5% to 2,198%.

- Tower Lofts at 700 Washington Avenue in the North Loop neighborhood is an example of a significant tax base growth. The building is a large multi-level structure built for a bag manufacturer in 1920. Before conversion, the parcel had a market value of $2.1 million. We estimate the building will be assessed at almost $48 million after construction ceases. Holding industrial market value growth constant, the tax base increase is $43.7 million.

- The tax base increase does not translate automatically to an increase in tax revenue. The City of Minneapolis sets the property tax levy based on spending needs and not the available tax base. In that light, the additional property tax revenue is an annual shift from existing property taxpayers to the new taxpayers. The magnitude of the annual shift ranges from $38,745 at 918 Lofts to $281,401 at Tower Lofts.

Three important considerations when thinking about Table 4.6 below:

1) As mentioned before, not every site will be able to command the price points that lead to elevated market values and property tax revenues.

2) The figures above do not account for the fiscal costs of providing City services to new residential units.
3) The tax base and revenue impacts both comprise less than 1% of the City's overall tax base and revenue. It's a small effect right now. Without actions to preserve industrial sites, however, the effect could grow.

TABLE 4.6
ANNUAL TAX BASE INCREASE AND TAX REVENUE SHIFT
FROM INDUSTRIAL-TO-RESIDENTIAL CONVERSIONS
MINNEAPOLIS, 2005

Project	Initial Conversion Year	Annual Tax Base Increase[1]	Annual Tax Base Increase (%)	Annual Tax Revenue Shift[2]
Actual				
801 Washington	2002	$22,298,115	---	$136,734
918 Lofts	2005	$6,859,799	11.9	$38,745
Bassett Creek Lofts	2003	$10,871,211	2.0	$41,141
Stone Arch Apartments	2003	$15,645,795	5.5	$103,683
Projections				
212 Lofts	2004	$21,406,425	2,645.1	$139,031
607 Washington Lofts	2004	$9,116,969	799.7	$54,910
1901 Lofts	2004	$9,264,925	2,509.7	$60,284
American Trio Lofts	2005	$26,262,621	978.7	$152,099
Bookmen Lofts	2004	$23,196,657	1,375.7	$146,822
Riverview	2004	$10,670,935	1,018.6	$65,275
Security Lofts	2004	$11,509,825	366.6	$78,290
Madison Lofts	2005	$10,641,619	1,138.4	$65,784
Tower Lofts	2004	$43,721,141	2,198.2	$281,401
CW Lofts	2004	$17,061,039	692.6	$100,485
Mill Trace Condominiums	2005	$13,510,453	1,997.7	$86,497
Total	**2000-2005**	**$196,362,611**	**1,159.3**	**$1,230,879**
% of Mpls Property Tax Base/Revenue (2004)		0.6%	---	0.5%

[1] = 2004 dollars.

[2] = City of Minneapolis' portion of the 2004 extension rate. Does not include estimated tax revenue accrued to Hennepin County, Minneapolis Public Schools, Minneapolis Park Board, Met Council, or any other referenda.

Source: Maxfield Research Inc.

Summary

The industrial sector contributes to the City's property tax revenue. In fact, industrial uses currently contribute a higher median tax payment per square foot that residential uses. Our analysis shows a considerable tax base increase and tax revenue shift at conversion sites, but the market won't necessarily support conversions in areas where the highest and best use remains industrial. Above and beyond the property tax impact, the net economic impact of a conversion depends on a host of factors.

Economic Impact of Industrial-to-Residential Conversions

Aside from the potential effect on property tax revenues, it is important to understand what determines whether a conversion has a positive or negative net impact on the economy of Minneapolis. Jobs are lost, but new condominiums are built. Which is better for the local economy?

Maxfield Research Inc. utilized Implan® software to model a number of conversion scenarios and differentiate these factors. Implan® is an economic impact analysis software program and dataset based on input-output analysis. Input-output analysis measures the interrelationships of commodity sales and purchases among local industries through multipliers.

The answer to the question "Jobs or condos, which is better for the economy?" is it depends. Four primary variables determine the net economic impact of a conversion project: scale of job loss; type of industry; market demand for residential use; income of new homebuyers. Table 4.7 shows four scenarios that illustrate each factor.

Value-added describes the amount of wealth created by an event. It sums up the take-home income earned by people, owners, and government.

For example, if a metal valve manufacturer sells $700,000 in valves this year (event), only a portion of the $700,000 will be accrued to the owner and employees as income and gov. in tax revenue.

The firm needs to pay for the inputs (e.g. raw metals). The remaining margin is value-added.

Scale of Job Loss: Scenario 1 shows that 100 more jobs lost in the same industry yields a very different outcome. Fifty jobs lost results in +$33M impact and 150 jobs lost yields a -$176M impact.

Type of Industry: Scenario 2 shows a $55M impact associated with a conversion project in which the job losses take place in a low value-added industry. If the job losses take place in a high value-added industry, the conversion project yields a -$78M impact.

Market Demand for Residential: Scenario 3 results in a -$75M impact when the conversion takes place at a site in which demand is not strong for condominiums. Units sell at higher price points when demand is strong ($73M), which translates to a $38M impact.

Income of New Homebuyers: Spending by new homebuyers only affects the local economy if they do not already live in Minneapolis. Plus, a household with an income of $35,000 impacts the local economy less than a household with an income of $100,000. Scenario 4 shows a conversion project that attracts fewer new higher-income households. The impact is -$48M impact. A project that sells units to higher incomes households yields a +$6M impact.

Summary

Again, the answer to how conversions impact the local economy is: it depends. Large job losses in a high value-added industry, on a site where demand for condominiums is weak, will likely yield a net economic loss. A small number of jobs lost in a low value-added industry, on a site where strong demand for condominiums exists, will likely yield a net economic gain to the City. These factors should be considered when evaluating a conversion projects.

TABLE 4.7
NET ECONOMIC IMPACT OF INDUSTRIAL-TO-RESIDENTIAL CONVERSIONS
MINNEAPOLIS, 2005

		Assumptions				Impacts[1]						
		2005-2015	Value Added	Total Bldg.	New HH's	Job Loss		Construction[3]		HH Spending		Net Economic[4]
Scenario	Industry	Job Loss	/ Job Lost	Value[2]	$100k-$150k	Jobs	Value-Added	Jobs	Value-Added	Jobs	Value-Added	Value-Added
#1												
Small Job Loss	Packaging Machinery Manufacturing	-50	-$101,407	$53,000,000	25	-110	-$99,093,419	756	$47,434,184	133	$83,122,949	**$33,231,975**
Large Job Loss	Packaging Machinery Manufacturing	-150	-$101,407	$53,000,000	25	-330	-$297,280,256	756	$47,434,184	133	$83,122,949	**-$176,092,963**
#2												
Jobs lost in low value industry	Tradebinding And Related Work	-121	$37,126	$53,000,000	25	-165	-$78,695,808	756	$47,434,184	133	$83,122,949	**$54,775,931**
Jobs lost in high value industry	Metal Valve Manufacturing	-121	$104,848	$53,000,000	25	-218	-$204,258,705	756	$47,434,184	133	$83,122,949	**-$77,843,600**
#3												
Less Demand for Condos	Envelope Manufacturing	-121	-$122,461	$35,000,000	8	-223	-$152,567,472	503	$31,548,207	78	$49,645,044	**-$75,385,453**
Greater Demand for Condos	Envelope Manufacturing	-121	-$122,461	$73,000,000	63	-223	-$152,567,472	1,030	$64,662,643	198	$123,673,942	**$37,779,337**
#4												
Fewer Upper Income HH's Moving into Mpls.	Envelope Manufacturing	-121	-$122,461	$42,750,000	10	-223	-$152,567,472	609	$38,260,593	107	$67,969,839	**-$48,941,182**
More Upper Income HH's Moving into Mpls.	Envelope Manufacturing	-121	-$122,461	$72,000,000	65	-223	-$152,567,472	1,027	$64,438,891	150	$93,964,515	**$6,163,913**

[1] = Value-added impacts are net present value of 2005-2015 impacts.

[2] = 150 unit condominium building.

[3] = Construction impacts are one-time.

[4] = 2005 dollars.

Source: Maxfield Research Inc.

Introduction

This section of the Technical Report reviews the existing industrial land use and employment policy in Minneapolis. The City's industrial policy is a combination of policy visions, the comprehensive plan, ordinances, economic development and employment programs, and informal policies. The purpose of this section is to provide a general overview of the City's policy toward industrial uses and employment.

The Minneapolis Plan

The policy vision for Minneapolis is outlined in the Minneapolis Plan, the City's Comprehensive Plan. The Minneapolis Plan was approved by the City Council and the Mayor on March 24, 2000. The document meets the conditions of the Metropolitan Livable Communities Act, which mandates that all cities in the Twin Cities Metro Area must have comprehensive plans. Through eight goals and resulting implementation steps, the plan outlines the overall policy direction for the City.

Minneapolis Plan on Industrial Land Use and Employment

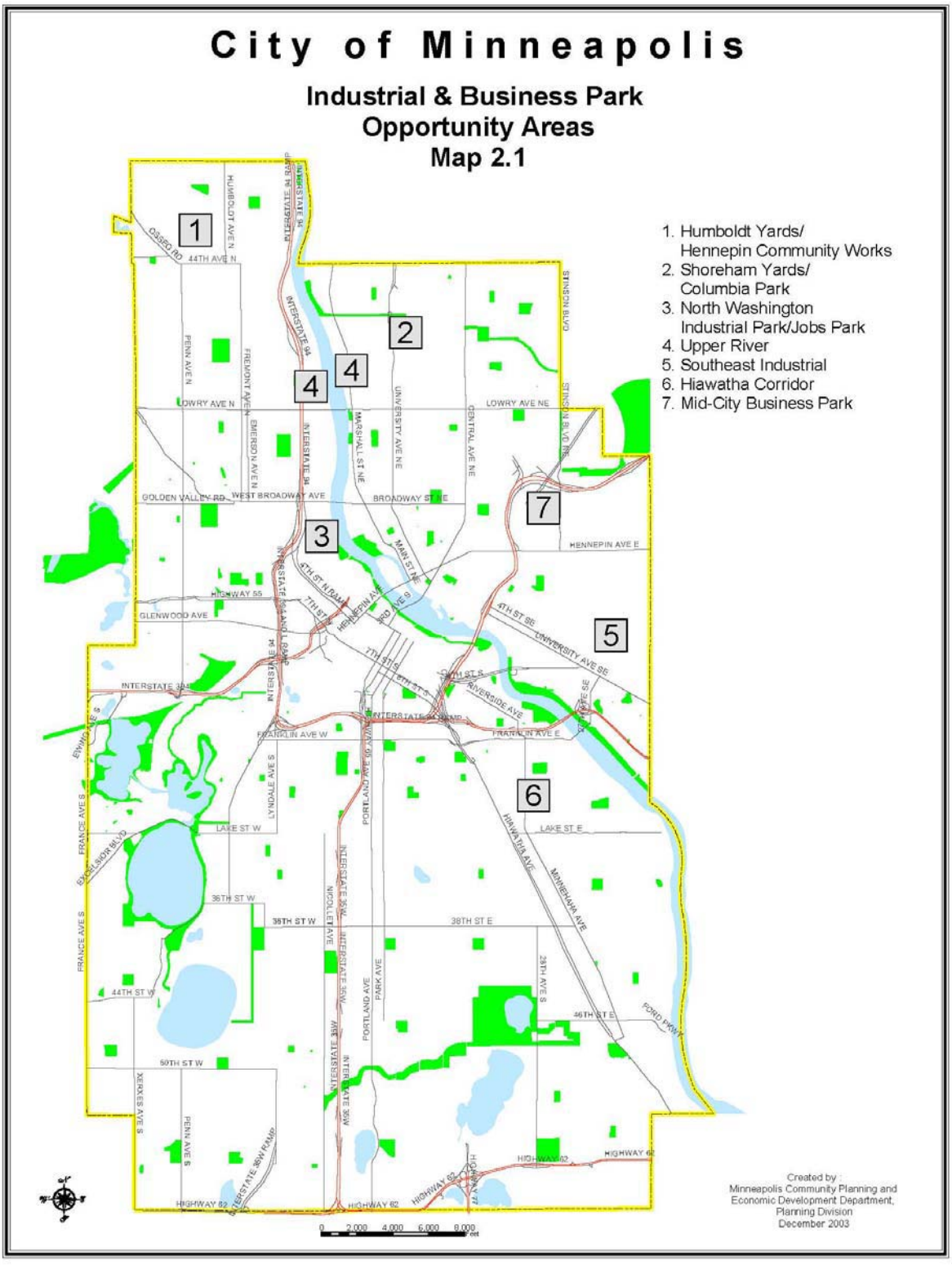
While the Minneapolis Plan does not directly outline the City's industrial land use and employment policies, many of the goals and implementation steps touch on how Minneapolis should encourage and regulate its industrial areas. Some of these items are outlined below.

- The primary discussion of industrial land use and employment is located in Chapter 2, The Market in the City. In section 2.2, the plan states, "Minneapolis will support the existing economic base by providing adequate land and infrastructure to make city sites attractive to businesses will to invest in high job density and low impact, light industrial activity."

- Section 2.2 also delineates seven Industrial/Business Park Opportunity Areas: Southeast Minneapolis Industrial Area; North Washington Industrial Park/Jobs Park; Upper River; Mid City Industrial Area; Shoreham Yards/Columbia Park; Humboldt Yards/Hennepin Community Works; and the Hiawatha Corridor (including Seward Industrial Park). These Industrial Business Park Opportunity Areas are shown on the map that follows.

- Section 2.2 also outlines that the City should promote light industrial uses, continue to protect the environment and support appropriate adjacent use, ready land sites, allow heavy industrial uses where appropriate, relocate conflicting industrial uses, and encourage heavy industry at sites with good freeway access, that are distant from residential, cultural, and natural amenities.

- According to Chapter 2, "Economic development activity will focus on four areas: The preparation of land attractive to investors; the access and availability of capital resources for business owners; further skill development and training for the labor force; and the streamlining or simplifying of regulatory environments that inhibit investment activity in the city."



Source: City of Minneapolis

- Chapter 2 also directs the City to develop quality physical and technological infrastructure, focus efforts on building a skilled and employable work force for living wage occupations, connect residents to living age jobs, continue to remove barriers that prevent residents from holding living wage jobs, emphasize business retention and expansion, and build innovative public-private sector partnerships to strengthen confidence in the economy.

Land-Use Regulation

Minneapolis Zoning Codes: Industrial Districts Summary

According to the Minneapolis Zoning Codes, §550.10, "the industrial districts are established to provide locations for industrial land uses engaged in production, processing, assembly, manufacturing, packaging, wholesaling, warehousing or distribution of goods and materials. Regulations for the industrial districts are established to promote industrial development and to maintain and improve compatibility with surrounding areas. In addition to industrial uses, limited commercial uses, parking facilities, institutional and public uses and public services and utilities are allowed."

Industrial zoning in the City is separated into three districts, which designate differing intensity levels of industrial uses. These are I1 – Light Industrial District; I2 – Medium Industrial District; and I3 – General Industrial District. Of the land in the City that is currently included in these industrial districts, approximately 36% is zoned Light Industrial, 59% zoned Medium Industrial, and 5% zoned General Industrial. This distribution reflects how the Medium Industrial District allows the widest range of industrial uses of the three districts, and also how the heavier industrial uses included in the General Industrial District tend to be relocating away from the urban core.

Also, it is interesting to note that no residential uses are allowed in any of the industrial districts, with the exception of correctional facilities (a conditional use). Additionally, educational facilities such as K-12 schools (I1 and I2) and vocational schools (all industrial districts) are allowed as conditional uses in industrial districts.

The three industrial districts are described as follows:

I1 – Light Industrial District

This district regulates low impact uses which produce little or no nuisance or other objectionable influences, and which have very little adverse effect on surrounding properties. No processing of raw materials or production of primary materials is allowed in the I1 District. Some examples of uses allowed in the Light Industrial District are:

- fabric products
- computers/electronic accessories
- household appliances
- medical/optical goods
- novelty items

- paper products & publishing (no mills)
- health & beauty products
- sporting goods

I2 – Medium Industrial District

The Medium Industrial District includes most uses allowed in the Light Industrial District as well as metal working, glass and other uses which have the potential to produce greater nuisances or other objectionable influences than light industrial uses and which may have an adverse effect on surrounding properties. Medium industrial uses may include processing of raw materials or production of primary materials. Some examples include:

- electrical equipment & machinery (motors, generators, heating & cooling, etc.)
- fabricated metal, plastic, glass & rubber products (except tires)
- ceramics, china, dishes, etc.
- gypsum/plaster products
- latex paints
- lumber products/plywood
- metal working

I3 – General Industrial District

Uses regulated in the General Industrial District include "high impact and outdoor uses which are likely to have a substantial adverse effect on the environment or on surrounding properties and which require special measures and careful site selection to ensure compatibility with the surrounding area." Processing of raw materials and production of primary materials are often included in this district, as is transportation, public service and utility services. These general industrial uses include, but are not limited to, the following:

- asphalt & roofing materials
- battery manufacture/reprocessing
- chemicals & chemical products
- oil-based paints, etc.
- petroleum/coal products (no mining)
- primary metals (steelworks, rolling, foundry)
- sand and gravel (no mining)
- stone, concrete products (cement, bricks)
- tires & inner tubes

Minneapolis Zoning Codes: Industrial Living Overlay District (IL)

The purpose of overlay districts in the City of Minneapolis is specific to each overlay district. These include goals such as the preservation/protection of natural environments, encouragement of pedestrian-friendly design, promotion of mixed-use redevelopment and protection of the public health. Property located within an overlay district is subject to the provisions of both the primary zoning district and the overlay district. The regulations of the overlay district govern those in the primary underlying district if the two are in conflict.

Permitted Uses

The IL – Industrial Living Overlay District "is established to encourage the rehabilitation and reuse of existing industrial structures and to provide for limited residential and retail uses in the I1 and I2 Industrial Districts where such uses are compatible with other uses in the area." The following are permitted uses in the Industrial Living Overlay District, which are to be located in existing buildings and must "maintain the architectural integrity and character of the building and surrounding area:"

- general retail sales and services uses
- antique stores
- banks and financial institutions
- bookstores
- grocery stores
- laundromats
- indoor theaters (live performances only)
- small video stores

Conditional Uses

Dwelling units and supportive housing are allowed as conditional uses in the Industrial Living Overlay District. These uses are subject to the following conditions:

- maintain exterior architectural integrity and character of building and surrounding area
- single and two-family dwelling maximum height = 2.5 stories or 35 feet (whichever is less)
- No vibration, excessive dust, noise, light, glare, smoke, odor, truck traffic or other substance or condition, shall be generated by uses in the building that will have an adverse impact on the residential use of the building

Density bonuses

The following density bonuses are allowed for properties in Industrial Living Overlay Districts:

Bonus for enclosed parking. The maximum number of dwelling units and the maximum floor area ratio of multiple family dwellings may be increased by 20% if all required parking is provided within the building, entirely below grade, or in a parking garage of at least two levels.

Bonus for affordable housing. The maximum number of dwelling units and the maximum floor area ratio of new cluster developments and new multiple-family dwellings of five units or more may be increased by 20% if at least 20% of the dwelling units meet the definition of affordable housing.

Changes in Industrial Zoning (Rezoning Amendments)

Rezoning amendments are governed by state law and by the Minneapolis Zoning Code. State law is designed to ensure the zoning from residential to another use is done with a good deal of community consent. The requirements for this type of zoning are much more stringent.

Zoning from Residential to Industrial or Commercial

Minnesota Statute 462.257 requires the written consent of two-thirds of the property owners within 100 feet of the property when the amendment would change all or part of the classification form residential to either industrial or commercial. If the Planning Commission determines that obtaining such consent is impractical and the amendment is based on a survey of not less than 40 acres, the amendment does not need to have the written consent, but does need to be passed by a two-thirds vote of the City Council.

Zoning from Residential to Another Class of Residential

Zoning amendments where the property is to be rezoned from one type of residential to another type of residential do not need consent of nearby property owners. Such amendments only require a majority vote in the City Council.

Zoning from Industrial or Commercial to Any Other Zoning District

The same as with zoning amendments from residential to another class of residential, zoning amendments from industrial or commercial to any other class do not require written consent from nearby property owners, and they only require a majority vote by the City Council.

Findings submitted by the Planning Commission

Following the hearing on the proposed zoning amendment, the Minneapolis Zoning Code requires that the Planning Commission make findings and recommendations for presentation to the City Council. The findings must address:

- Whether the amendment is consistent with the applicable policies of the comprehensive plan;
- Whether the amendment is in the public interest and is not solely for the interest of a single property owner;
- Whether the existing uses of property and the zoning classification of property within the general area of the property in question are compatible with the proposed zoning classification;
- Whether there are reasonable uses of the property in question permitted under the existing zoning classification; and

- Whether there has been a change in the character or trend of development in the general area of the property in question, which has taken place since such property was placed in its present zoning classification.

Table 5.1 shows rezoning amendment applications and status for 2004 and 2005 where the property is to be rezoned from an industrial use. The data comes from a review of City Council and Planning Commission minutes available on the Minneapolis web site.

Industrial Regulation

In addition to land-use regulation outlined in the zoning code, the City of Minneapolis regulates businesses through licensing and through environmental regulation. Licensing is overseen by the Licensing and Consumer Services Division. Environmental issues are the jurisdiction of Environmental Management.

Employment and Economic Development Policy

The following list of programs shows the tools available to CPED staff.

City of Minneapolis Economic Development Tools Available to Industrial Businesses

Capital Acquisition Loan Program: Provides affordable financing for rehabbing small commercial and industrial properties.

Capital Investment Fund Program: Offers short-term bridge financing and long-term, fixed-rate, and below-market loans for capital investment.

Commercial Corridor Revitalization Fund Program: Finances development projects on commercial corridors with benefits to multiple businesses including development of parking, removal of blight, and enhancement of area security.

Community Economic Development Fund: Provides financial assistance for redevelopment projects in community-level and strip commercial areas (including light industrial uses).

Development Fund Loan Program: Issues loans with flexible terms and possible partial loan forgiveness for redevelopment projects.

TABLE 5.1
RE-ZONING APPLICATIONS FOR INDUSTRIAL ZONED AREAS
CITY OF MINNEAPOLIS
JANUARY 2004 TO DECEMBER 2005

Project Name Address	Application Number	App. Date	Status	Acres/ Sq. Ft.	Zone Change	Description/ Key Findings
Hiawatha Flats 3601-3609 East 43rd Street Area 4	BZZ-2699	Oct-05	Adopted	3.8 acres 165,775 sf	Rezone I1 to R5	Applicant is proposing to build two buildings with 233 rental units. **Findings:** Among other findings, because of proximity to LRT, site is better for housing than existing or new industrial uses.
618 Washington Ave N 618 Washington Ave N Area 2	BZZ-2688	Oct-05	Adopted (Denied by Planning Commission)	0.5 acre 21,359 sf	Rezone from I2 with ILOD to C3A and remove ILOD	Applicant proposes to convert warehouse into condominiums, needs C3A zoning for number of units. **Findings:** Planning Commission found the project does not contribute mixed-use or street level activity to the public; rezoning would result in spot zoning in the midst of the IL Overlay District; and the application is primarily in the interest of the developer and does not meet the public interest.
800 16th Ave SE 800 16th Ave SE Area 3	BZZ-2669	Oct-05	Continued by Planning Commission	0.5 acre 21,520 sf	Rezone from I1 to I1 with ILOD or R5	Applicant proposes to convert an existing 3-story light industrial building to a 5-story apartment building. **Findings:** Staff is waiting for additional information from applicant before making recommendation.
3433 East 25th 3433 East 25th St. & 2504 35th Ave S Area 4	BZZ-2584	Aug-05	Adopted	0.35 acre 15,092 sf	Add ILOD to I1	Applicants propose to add a residential unit to an existing industrial bldg to use as live/work art space. **Findings:** Proximity to existing residential makes ILOD zoning appropriate.

Continued

TABLE 5.1
RE-ZONING APPLICATIONS FOR INDUSTRIAL ZONED AREAS
CITY OF MINNEAPOLIS
JANUARY 2004 TO DECEMBER 2005
(Continued)

Phoenix Lofts 221 Main Street SE & 224 2nd Street SE	BZZ-2324	Apr-05	Adopted	1 acre 40,000 sf	Rezone from I1 with ILOD to C3A	Applicant proposes to demolish the Pillsbury Data Center and to construct in its place a 90 unit residential building with first floor retail along Main Street SE. **Findings:** Under the Minneapolis Plan, area is defined as activity center and as such is appropriate for rezoning. Adjacent uses make residential appropriate.
42nd Street Studios Phase II 4136 Dight Ave Area 4	BZZ-2257	Jun-05	Adopted	0.15 acre 6,680 sf	Add ILOD to I1	Applicant requested ILOD be added to adjacent property to 42nd Street Studios Phase II, in order to develop Phase II, an 8-unit for-sale residential bldg. **Findings:** The City has allowed the applicant to rezone contiguous parcels to the ILOD.
Flour Sack Lofts 521 2nd Street SE	BZZ-2237	Feb-05	Adopted	0.75 acre 32,670 sf	Rezone from I1 with ILOD to C3A	Applicant proposes to build a 52-unit, 5-story building with 7,669 square feet of ground floor commercial. **Findings:** Staff originally recommended to deny rezoning. However, commission found the Stone Arch Bridge is starting to define a new boundary which is part of an expansion of an activity center; the rezoning provides the same limitations as the current zoning (i.e. the 4-story height); the zoning change is in the public interest, taking note of the investments and infrastructure in this area such as park land and the Stone Arch Bridge; the approval takes note of the level of development interest in the area, and the intent of the ILOD is the adaptive re-use of older, formerly industrial buildings.

Continued

TABLE 5.1
RE-ZONING APPLICATIONS FOR INDUSTRIAL ZONED AREAS
CITY OF MINNEAPOLIS
JANUARY 2004 TO DECEMBER 2005
(Continued)

Heritage Park **2nd ownership phase** Van White Memorial Blvd, 10th Avenue North, 12th Avenue North, & Humboldt Avenue North Area 2	BZZ-2206	Feb-05	Approved by Planning Commission	NA	Rezone from I1, R1A and R4 to R4	The subject area is part of the Heritage Park development. **Findings:** Not clear whether industrial is feasible and proposal is consistent with Near Northside Master Plan.
2929 University Ave SE & **3000 4th St SE** 2929 University Ave SE & 3000 4th St SE Area 3	BZZ-2185	Aug-05	Adopted	3.8 acres 165,528 sf	Add ILOD to I1	Former Kemps site, applicant proposes a mixed use bldg with offices, a grocery store, warehousing, self-storage and minor auto repair businesses. **Findings:** Proposal is consistent with area's Community Corridor designation under Minneapolis Plan and appropriate given adjacent uses.
For Pet's Sake 4525 Hiawatha Avenue Area 4	BZZ-2109	Nov-04	Postponed by City Council; Approved by Planning Commission	1.1 acres 47,050	Rezone from I1 to C2	Rezone subject site to the C2 district to allow a pet store and other retail use. **Findings:** City staff recommended to deny application because rezoning the property would not contributing to the intended direction of the redevelopment of existing land uses in the 46th Street Station Area Master Plan. But planning commission found Hiawatha Avenue is and will continue to be a major traffic corridor; and the C2 District allows more of the uses envisioned for the site in the adopted station area plan.

Continued

TABLE 5.1
RE-ZONING APPLICATIONS FOR INDUSTRIAL ZONED AREAS
CITY OF MINNEAPOLIS
JANUARY 2004 TO DECEMBER 2005
(Continued)

Cream of Wheat 730 Stinson Blvd. NE Area 3	BZZ-2127	Dec-04	Adopted	5 acres 216,980 sf	Add ILOD to I2	Applicant proposes to renovate CW bldg into 128 condo units and build 4-story bldg. with 65 condo and townhome units **Findings:** City staff recommend no ILOD, but use HPC variance for housing in existing bldg and no new bldg. But planning commission found application will further the historic preservation goals of the City of Minneapolis for this historic resource; the project increases options for residential opportunities (and allow for adjacent business owners' ability to attract and retain employment in the area with higher quality housing); this area is identified in the Comprehensive Plan as a potential growth center; and although zoned for medium industrial uses, the Stinson Technology Campus has been a catalyst for change in the area such that most of the uses in the area of the site are currently light industrial, office-warehouse, and biotech uses. This trend is likely to continue in the future rather than towards medium-density industrial uses. The substantial setbacks and landscaped yards of both phases of the project will mitigate the potential adverse impacts typically associated with industrial uses such as 24-hour operations, truck traffic, noise, and vibrations.

Continued

TABLE 5.1
RE-ZONING APPLICATIONS FOR INDUSTRIAL ZONED AREAS
CITY OF MINNEAPOLIS
JANUARY 2004 TO DECEMBER 2005
(Continued)

1824 Quincy St. NE 1824 Quincy St. NE	BZZ-2049	Oct-04	Adopted	0.15 acres 6,480 sf	Add ILOD to I2	The applicant proposes to remove an existing vacant and condemned building from the property in order to construct a new three-family dwelling. **Findings:** While industrial or office uses would be a reasonable use of the property, the small parcel size makes such development impractical. The proposed rezoning would preserve the ability to assemble parcels for an industrial use.
201 6th St. SE 201 6th St. SE	BZZ-2036	Oct-04	Adopted	NA	Add ILOD to I1	Applicant proposes to incorporate four dwelling units and several artist studio spaces into an existing building **Findings:** There are existing residential in the vicinity that would be consistent and compatible with the proposal to facilitate the ability to place dwelling units on the site.
1901 Lofts 1901 East Hennepin Avenue Area 3	BZZ-1970	Sep-04	Adopted	1.1 acres 49,000 sf	Add ILOD to I2	Applicant proposes 45 for-sale condominium units in existing bldg. **Findings:** Area is designated Community Corridor in Minneapolis Plan and adjacent areas are ILOD.
Presidents Row Lofts 1701 Madison St NE	BZZ-1963	Sep-04	Adopted	1.3 acres 56,327 sf	Add ILOD to I1	Applicant proposes developing 70 units of for-sale housing in and adjacent to existing industrial building. **Findings:** ILOD is appropriate given area's Community Corridor designation. Project will reuse existing bldg. and increase city's tax base.

Continued

TABLE 5.1
RE-ZONING APPLICATIONS FOR INDUSTRIAL ZONED AREAS
CITY OF MINNEAPOLIS
JANUARY 2004 TO DECEMBER 2005
(Continued)

Lake Street/Midtown LRT Station Area Plans Lake and Hiawatha Area 4 (1st of 6 LRT Station Plans to receive amendments in primary zoning)	NA	Apr-04	Adopted	1.8 acres 80,186 sf 1.3 acres 57,000 sf 0.5 acres 19,807 sf	Add ILOD to I1 Rezone I1 to R4 Rezone I2 to OR2	Implements Transit Station Area policies of the Minneapolis Plan as articulated in the adopted station area plans, including the Hiawatha/Lake Station Area Master Plan, Corcoran Midtown Revival Plan, and Development Objectives for the Hi-Lake Center. **Findings:** The proposed zoning identifies reasonable changes to fulfill long-term land use objectives of adopted city plans. In some cases, non-conforming uses become conforming to establish consistency with the plans. In some cases, uses become legally non-conforming so that future uses are consistent with the plans. In most cases, zoning changes increase development potential to realize the density and/or use objectives of the plans.

Sources: City of Minneapolis; Maxfield Research Inc.

Minneapolis Industrial Land and Employment Strategy (MILES) Program: Provide site acquisition funds for light industrial properties.

Tax Exempt Revenue Bond Financing: Bonds issued to finance the acquisition, construction, and leasing of industrial, commercial, office, nursing home, and multifamily rental facilities.

Taxable Revenue Bond Financing: Same use as tax-exempt, except eligible to firms that do not qualify for tax exempt revenue bond financing.

2% Revolving Loan Program: Issues low-interest and long-term loans to neighborhood retail, service, and light manufacturing businesses.

Commercial Corridor and Commercial Node 2% Revolving Loan Program: Same use, but targeted to businesses on commercial corridors and nodes.

Working Capital Loan Program: Purchases 50% of private lender loans or guarantees 75% of loans provided by private lenders. Also prioritizes light manufacturing industries for participation.

State Programs Available to Industrial Businesses in Minneapolis

Business Financing

Minnesota Investment Fund: Grants are awarded to local units of government who provide loans to assist expanding businesses. Cities, counties, townships, and recognized Indian tribal governments are eligible. Loans for land, buildings, infrastructure improvement, equipment, and training to support businesses located or intending to locate in Minnesota are eligible. Working capital, retail business, and industrial park development projects are ineligible

Urban Initiative Loan Fund: Assists minority-owned and -operated businesses and others that will create jobs in low-income areas of the Twin Cities. Start-up and expansion costs, including normal expenses such as machinery and equipment, inventory and receivables, working capital, new construction, renovation, and site acquisition are eligible projects.

Minnesota Indian Business Loan Fund: Supports the development of Indian-owned and -operated businesses and promotes economic opportunities for Native American people throughout Minnesota. Eligible projects include start-up and expansion costs, including normal expenses such as machinery and equipment, inventory and receivables, working capital, new construction, renovation, and site acquisition.

Tax Free Zones

BioScience Zone: Eligible businesses qualify for state corporate and sales and use tax exemptions, employee tax credits, and research and development credits. The zone in Minneapolis is one of three zones in the state.

Employment Training Programs Available

Job Skills Partnership: Provides grants of up to $400,000 to educational institutions with businesses as partners to develop training programs specific to business needs.

Minnesota Pathways Program: Provides grants of up to $400,000 to educational institutions with businesses as partners to develop training programs for individuals making a transition from public assistance to work.

Health Care and Human Services Worker Training and Retention Program: Provides grants of up to $400,000 to educational institutions to develop training programs to alleviate worker shortages in the health care and human services industries.

Hire Education Loan Program: Provides short-term, no interest loans of up to $250,000 to Minnesota businesses to assist them in obtaining the training they need for new or existing employees.

Introduction

The Minneapolis Plan, the City's comprehensive plan, guides all land use decisions in Minneapolis. Additions, modifications, and clarifications of this document are made through, citywide topical plans, site-specific plans, and small area plans. This section of the technical report reviews these planning documents and their effect on Minneapolis' industrial land and employment.

Citywide Topical Plans

Citywide topical plans apply to a particular policy or subject area and have implications citywide, across neighborhood boundaries. The Minneapolis Plan often provides some guidance on these issues but the citywide topical plans provide specific recommendations and detailed implementation strategies. Examples include the Affordable Housing Plan, Environmental Sustainability Plan, and park and library plans. It is expected the result of this study will be a citywide topical plan that makes necessary changes to the Minneapolis Plan.

Small Area Plans

Small area plans build off of the goals, policies, and guidelines of the Minneapolis Plan and make more specific recommendations for clearly delineated neighborhoods or areas. Small area plans typically outline a long range vision for land use and development, typically over the next 15 to 20 years. The plan examines current uses in the area, works with residents and interested parties to develop a vision for the area, and designates goals, objectives, and policies that will make the vision a reality. Small area plans are typically initiated by neighborhood or community groups in and near the area being planned.

The final product of small area plans provides recommendations on future land uses, overall urban character and design, economic development, housing, and transportation, along with implementation recommendations, proposed redevelopment sites, public improvements, timelines, and costs.

The small area plan is submitted to the City Planning Commission and the City Council for approval. Plans can only be approved that are consistent with the goals and policies of the Minneapolis Plan. After a plan has been approved by the City, CPED staff may recommend preparing a comprehensive plan amendment to the Metropolitan Council to make the document a part of the Minneapolis Plan.

A summary of small area plans in and near the areas of analysis is shown in Table 6.1. (The table was put together in the summer of 2005, so it may not have updated information on the most current versions of the small area plans. The conclusions and recommendations contained in this document and the *Industrial Land Use and Employment Policy Plan* reflect our most current understanding of the content of the small area plans, as of June 2006.)

TABLE 6.1
MASTER PLANS AND STUDIES
CITY OF MINNEAPOLIS
1989 to 2005

Related Plan/ Study	Year	Area of Analysis	Description	General Findings/ Recommendations	Key Issues
RECOMMEND PRESERVING INDUSTRIAL USES					
Hiawatha & Lake Station Area Master Plan	2001	S/SE	● Part of a series of plans for transit-oriented development (TOD) around LRT stations. ● 500 acres of land, w/appx. 20% redevelopable.	● Identifies commercial and residential redevelopment sites along Lake Street. ● Preserves industrial uses in So. Phillips because of employment opportunities. ● Expands PW yard and seeks more light industrial in North Phillips. ● Expands industrial uses in Seward Business Park into surplus sites adjacent to Hiawatha Corridor. ● Calls for re-use & redev. of Bituminous Roadways plant.	● Plan recognizes employment and economic benefits from preserved and expanded industrial uses, but singles out a user for redev. ● Plan does not incl. industrial projects in vision for sites near LRT station.
Humboldt Industrial Plan: Community Planning…Summary	2004	N/NE	● Summarizes master plans and related studies undertaken in previous 10 years.	● Identified 5 areas for screening and buffering improvements. ● Manages commuting truck, rail, traffic and improves residential interface through street investments and calls for increased biomass energy options. ● Recommends truck routes, street extensions for access to Mississippi River, green space improvements.	● Accomplishments include extending/road improvements on 47th St., added fencing along bordering ind. properties, air quality equipment installed at asphalt plants, removed dilapidated building, and added rail spur to alleviate idling time.

Continued

TABLE 6.1
MASTER PLANS AND STUDIES
CITY OF MINNEAPOLIS
1989 to 2005
(Continued)

Related Plan/ Study	Year	Area of Analysis	Description	General Findings/ Recommendations	Key Issues
RECOMMEND PRESERVING INDUSTRIAL USES (Cont.)					
Humboldt Industrial Park: Site Analysis	2002	N/NE	• Analyzes building and land characteristics in Humboldt Industrial Park and recommends site upgrades.	• Breaks down Humboldt Industrial Park into 5 sub-areas because of different building characteristics.	• Recommends evergreen screening and parking repaving along Humboldt Ave., additional fencing and berming on 49th Ave., phased industrial expansion interspersed with park space at 49th Ave. and Osseo Rd., new fencing and plantings along railroad tracks b/w Osseo Rd. and Humboldt Ave. • First phase of investments should be Humboldt Ave. and 49th Ave.
Minneapolis Brown-field Reclamation Analysis	2001	N/NE	• Documents best practices for inner-city industrial redevelopment. • Documents economic outcomes of 6 industrial redevelopment projects in North Washington Jobs Park.	• NWJP Steering Committee, made up of private citizens, served as single most important part of inner-city redevelopment. • $6.3 million in net costs produced 436 full-time living-wage jobs (50 held by Mpls residents).	• Site acquisition and remediation by City, with autonomous leadership of steering committee, served as catalyst for public-private redevelopment of NWJP.
Nicollet Avenue: The Revitalization of Minneapolis' Main Street	2000	S/SE	• MP developed by Stevens Square, Whittier, Lyndale, Kingfield, Tangletown, and Windom neighborhoods.	• Invest in well-designed commercial nodes • Redevelop under-used commercial properties • Encourage quality design and pedestrian friendly • Manage traffic flow and decrease speeds	• Compatible industrial use should remain with new building standards. If can't meet standard, relocation. • Relocate non-compatible industrial use • Belief that industrial use will be priced out of market

Continued

TABLE 6.1
MASTER PLANS AND STUDIES
CITY OF MINNEAPOLIS
1989 to 2005
(Continued)

Related Plan/ Study	Year	Area of Analysis	Description	General Findings/ Recommendations	Key Issues
RECOMMEND PRESERVING INDUSTRIAL USES (Cont.)					
Northside Jobs Park Design Guidelines Development & Framework	1997	N/NE	● Guidelines for developers building in Northside Jobs Park ● From MCDA	● Objectives include establishing a distinctive neighborhood based on existing characteristics; enhancing Wash. Ave as a main street, and emphasizing outdoor spaces for people.	● Outlines employment metrics: total number of ft jobs, number of ft jobs for Mpls residents, average and min. wages, projected wages, and number of ft jobs per 1,000 sf of space.
Seward Longfellow Greenway Area Land Use and Pre-Dev. Study	2004	S/SE	● Lays out design vision along Midtown Greenway between Hiawatha Ave. and Mississippi River.	● Preserves industrial uses along 27th-28th, 31st-34th Avenues. ● Recommends rezoning industrial parcels east of 34th Avenue to multifamily residential use.	● Large industrial users with viable operations, significant structure will likely remain industrial. ● Intensifies industrial use- reduces setbacks from street, setbacks b/w bldgs, creates shared parking, multi-story bldgs, discourages non-ind. uses on ind. land (e.g. mini-storage)
Southeast Minneapolis Industrial (SEMI) Refined Master Plan	2001	SEMI	● Component of SEMI/Bridal Veil Alternative Urban Areawide Review (AUAR). ● Extension of Original Master Plan (1997) and Design District Framework (1998).	● North Redev. Area: create Kasota Pkwy, continue industrial zoning categories, buffer Como Neighborhood. ● South Redev. Area: re-zone to mix of uses, extend 4-sided block system from University Ave. and create green space. ● Central Redev. Area: Current railroad owners unwilling to sell property, but eventually follow north dev. pattern.	● Needed to improve connectivity through road extensions and loop system. ● When redeveloping industrial sites near mixed-use corridors, street/block system will organize redev. and preserve urban fabric. ● Use street design and green infrastructure to mitigate env. impact from stormwater runoff (e.g. north-south greenway, Granary Park, bioretention ponds, rain gardens).

Continued

TABLE 6.1
MASTER PLANS AND STUDIES
CITY OF MINNEAPOLIS
1989 to 2005
(Continued)

Related Plan/ Study	Year	Area of Analysis	Description	General Findings/ Recommendations	Key Issues
RECOMMEND PRESERVING INDUSTRIAL USES (Cont.)					
Upper Mississippi Industrial Corridor Report	2004	N/NE	● Sponsored by Hawthorne Area Community Council. ● Survey of businesses in industrial corridor. ● Purpose: assess value of corridor; assess business perception; assess collaborative opportunities.	● Corridor provides job opportunities. ● Wages above $15/hr. ● Residents not getting these jobs. ● Employers like area, but see need for improvement. ● More collaboration between businesses and neighborhood.	● 72% of workers lived outside Mpls. ● 69% of employers said difficult finding qualified employees. ● Central location, access to highway were positives. ● Crime, relations with neighborhood groups, city taxes, infrastructure concerns were negatives. ● Perception that city is using regs and taxes to clear area for housing.
RECOMMEND CONVERTING INDUSTRIAL USES					
Bassett Creek Valley Master Plan	2000	N/NE	● Master Plan from planning committee with assistance from County, City, and MCDA. ● Includes sub area of Near North.	● Master plan for the area centering on the development of new north-south boulevard, with mix of housing, office, retail, and industrial	● Design framework recognizes existing industrial uses and promotes living-wage job development. ● Framework includes rec's to make industrial uses more acceptable to housing. ● Priority for existing businesses.
Downtown East North Loop Master Plan	2003	S/SE	● Establishes vision for how growth should occur in underdeveloped districts of Downtown Mpls. ● Capitalizes on LRT transit investments.	● Concentrate Class-A office buildings in DT core. ● Development of "Complete Communities" in DT East and North Loop. ● Preference for mid- to high-density mixed-use dev. ● Land use plan designed to encourage transit use, but calls for development above future commuter rail line.	● Continues trend of adaptive re-use of industrial and warehouse buildings in North Loop to mixed-use and residential structures.

Continued

TABLE 6.1
MASTER PLANS AND STUDIES
CITY OF MINNEAPOLIS
1989 to 2005
(Continued)

Related Plan/ Study	Year	Area of Analysis	Description	General Findings/ Recommendations	Key Issues
RECOMMEND CONVERTING INDUSTRIAL USES (Cont.)					
Marcy-Holmes Neighborhood Master Plan	2003	SEMI	● Plan developed by Marcy-Holmes Neighborhood	● Comprehensive MP for the area centering on the land-use, housing, livability issues, economic development, public realm, transportation, character and design, and historic preservation.	● "contend with and control impacts of economic development" ● Expects vacated industrial uses along river and recommends new uses. ● Attractive industrial areas that are compatible with housing. ● Attract new commercial, primarily neighborhood retail. ● Preservation of unique, locally-owned retail.
Update to Historic Mill District Master Plan	2001	S/SE	● Residential projects, cultural dev., and transit investments spur need for updated plan & parking strategy.	● Site plan & arch. guidelines for Guthrie Theater. ● Refined design for Chicago Ave. b/w 2nd St. and W. River Parkway. ● New res. prototype block. ● Revised Wash. Ave. streetscape ● Parking strategy for Mills District. ● Re-zones 2 blocks in SW part of area from Light Industrial (I1) to Community Activity Center classification (C3A), which allows residential dev.	● Residential development and industrial re-use projects are catalyzed by public investments. ● As a result, plan calls for re-zoning light industrial facilities on Washington Ave. to allow further residential dev.

Continued

TABLE 6.1
MASTER PLANS AND STUDIES
CITY OF MINNEAPOLIS
1989 to 2005
(Continued)

Related Plan/ Study	Year	Area of Analysis	Description	General Findings/ Recommendations	Key Issues
RECOMMEND CONVERTING INDUSTRIAL USES (Cont.)					
38th St. & Hiawatha Station Area Master Plan	Present	S/SE	• Currently being revised in order to account for development proposals on east side of Hiawatha. • Part of a series of plans for transit-oriented development (TOD) around LRT stations.	• The plan envisions districts or sub-districts with particular land uses, character, and features. • Plan sees the 38th Street station as gateway into the three surrounding neighborhoods.	• Re-zone industrial parcels between 42nd Street and 32nd Street to office, residential, and retail space.
46th St. & Hiawatha Station Area Master Plan	2001	S/SE	• Studied a half-mile radius around 46th & Hiawatha intersection. Existing land uses incl. mostly residential, but also open spaces, industrial, and retail. Plans for redev. due to LRT station. • Industrial dev. is centered around Soo Line railroad track, which serves four grain elevators, lumberyard, and possibly other industrial uses.	• Park board should swap land under RR tracks to a public development agency. • Retain RR spur south of 46th to support the Princess Depot as a cultural attraction. • Seek legislative approval to bury powerlines under tracks. • Expecting higher traffic will put pressure on ind. sites to become drive-through retail or housing, City should identify the number of jobs and pay scale at ea. industrial site. City should take measures to assure these jobs are not lost to Mpls.	• Re-zones industrial parcels north of 45th Street as office/convertible space. • Re-zones industrial parcels north of 45th Street as office, mixed-use residential and retail. • Community concerns were especially pronounced about auto uses and drive-through retail.

Continued

TABLE 6.1
MASTER PLANS AND STUDIES
CITY OF MINNEAPOLIS
1989 to 2005
(Continued)

Related Plan/ Study	Year	Area of Analysis	Description	General Findings/ Recommendations	Key Issues
RECOMMEND CONVERTING INDUSTRIAL USES (Cont.)					
Above the Falls Upper River Master Plan	2001	N/NE	• Master Plan commissioned by Park Board, County, City, and MCDA	• Significant park creation along river, incl. trails, parks, boulevards, water quality features, and riverbank restoration • Close Upper Harbor Terminal • Phase out heavy industry • Mix of park, residential, light-industrial, and commercial use • Develop new riverfront residential and mixed- use communities on west bank	• Barging brings little value to city in terms of jobs and tax base • Public subsidies are high on lock system at St. Anthony • Conflicts with heavy industry and neighborhoods • Heavy industrial use is not appropriate for area because of riverfront and closeness to DT. • Riverfront amenities will attract more employee-int. businesses than heavy industry
Upper Harbor Terminal Redevelopment Study	2004	N/NE	• Collaboration of Friends of Mississippi River, American Rivers, and City of Mpls. • Reuse options at UHT	• Recommends phased housing approach with retail and office. • Recommends upper- to middle-scale housing, with upper phased first. • Recommends restructuring Washington and Dowling Aves. • Development may need TIF or other public funding	• Follows Above the Falls recommendations • Assumes closing of UHT by City. • No industrial commercial uses recommended in study. • UHT closing challenged by industry in comments.

Continued

TABLE 6.1
MASTER PLANS AND STUDIES
CITY OF MINNEAPOLIS
1989 to 2005
(Continued)

Related Plan/ Study	Year	Area of Analysis	Description	General Findings/ Recommendations	Key Issues
RECOMMEND CONVERTING INDUSTRIAL USES (Cont.)					
Previous Upper River Plans (Mississippi/ Minneapolis, The Upper River in Minneapolis, Mississippi Corridor Neighborhood Coalition, Gateways to the River)	1972 1985 1984 1985	N/NE	• Studies commissioned by City and Neighborhoods	• Continuous recreation trails along river • Public riverfront • Enhance streets near river • Locations for river views • River enhancing land use • Riverbank enhancement • Improve ecology and H2O quality • Reduce pollution	• Recommend mix of or elimination of industrial uses • Look to Chain of Lakes area as model for riverfront • Redevelopment seen as critical to counter lower employment and deteriorating housing stock
NEUTRAL OR DO NOT ADDRESS INDUSTRIAL USES					
Corcoran Midtown Revival Plan	2002	S/SE	• Corcoran Neighborhood Organization undertook master plan to facilitate implementation of multiple design visions for Lake St. and neighborhood.	• Recommends infill housing, Lake Street residential dev., TOD housing by LRT station, public market & arts center, plaza streets, green spaces, bicycle & pedestrian loop.	• Calls for Pedestrian Oriented Overlay District to guide commercial development, but does not address industrial development.
Downtown Multimodal Station Area Master Plan	2002	S/SE	• Studies land use, traffic patterns, and transit and pedestrian facilities w/i .5 mi. of multi-modal station b/w 5th St. & 7th St. • Focuses on Sunken Area in Station Core District, Viaduct Area in North Loop, Farmers Market in Far West District.	• Recommends 2-story street system and downtown greenway, replacing MN-DOT owned viaduct, mixed-use dev. at Farmers Market, and linear dev. along HC Energy Resource Center.	•Envisions multiple dev. visions, incl. ballpark in the North Loop. • Plan does not take up or recommend industrial development.

Continued

TABLE 6.1
MASTER PLANS AND STUDIES
CITY OF MINNEAPOLIS
1989 to 2005
(Continued)

Related Plan/ Study	Year	Area of Analysis	Description	General Findings/ Recommendations	Key Issues
NEUTRAL OR DO NOT ADDRESS INDUSTRIAL USES (Cont.)					
Elliot Park Master Plan	2003	S/SE	● Plan developed by Elliot Park Neighborhood, Inc.	● Focus on building re-use and infill development. ● Mixed-use, mixed-income, mixed-demographic ● Use of "Step-down" bldg. heights ● Expand bus service and routes to LRT, pedestrian use ● Promote green space and parks	● Project areas focus on housing, retail, and small office use. ● No statement of industrial use, or jobs focus.
Franklin-Cedar/Riverside Transit Oriented Development Master Plan	2001	S/SE	● Part of a series of plans for transit-oriented development (TOD) around LRT stations. ● Builds off master plans by Franklin Ave. LRT Task Force, Ventura Village, U of M, Augsburg,	● Pedestrian challenges affect dev. On 4 corners of Franklin LRT station, and access to light industrial parcels south on Cedar Ave. ● Cedar-Riverside station has visibility and access problems. ● Design guidelines for commercial and residential dev.	● Design guidelines mention office, retail, and residential development but do not address or site possible industrial dev. opportunities.
Hi-Lake Shopping Center Development Guidelines and Objectives	2002	S/SE	● Lays out specific dev. vision of mixed-use, pedestrian- and transit-friendly, and green development at the site.	● Issues TOD design and green building guidelines for public infrastructure investments and private development.	● Plan does not specifically address industrial dev., but provides min/max commercial floor ratios and calls for built-to lines.

Continued

TABLE 6.1
MASTER PLANS AND STUDIES
CITY OF MINNEAPOLIS
1989 to 2005
(Continued)

Related Plan/ Study	Year	Area of Analysis	Description	General Findings/ Recommendations	Key Issues
NEUTRAL OR DO NOT ADDRESS INDUSTRIAL USES (Cont.)					
Midtown Greenway Corridor Framework Plan	1999	S/SE	● Establishes development vision for Lake Street and Midtown Greenway. ● Focuses on placemaking & connectivity. ● Addresses land use tensions as commercial dev. encroaches into residential neighborhoods.	● Design guidelines -e.g. "Greenway friendly" dev., trail connections on edge, promotes compact & mixed-use dev. ● Lays out dev. vision for 11 focus areas along corridor.	● Relationship b/w corridor and neighborhoods is critical -vitality of neighborhoods depend on commercial success of corridor. ● Street improvements such as re-opening Nicollet Ave. at Lake St. and repaving Lake St. are critical steps to creating linkages along a corridor. ● No recommendations for industrial development.
Near North Side Master Plan	2000	N/NE	● Community master plan which seeks to create a mixed-income stable community	● 440 rental, 360 for-sale, 100 senior housing units ● Master plan includes options for developing new street grid, with parks and greenspace, emphasizing social connection.	● Master plan calls for retail and commercial uses along Olson Mem. Blvd, but does not mention industrial uses

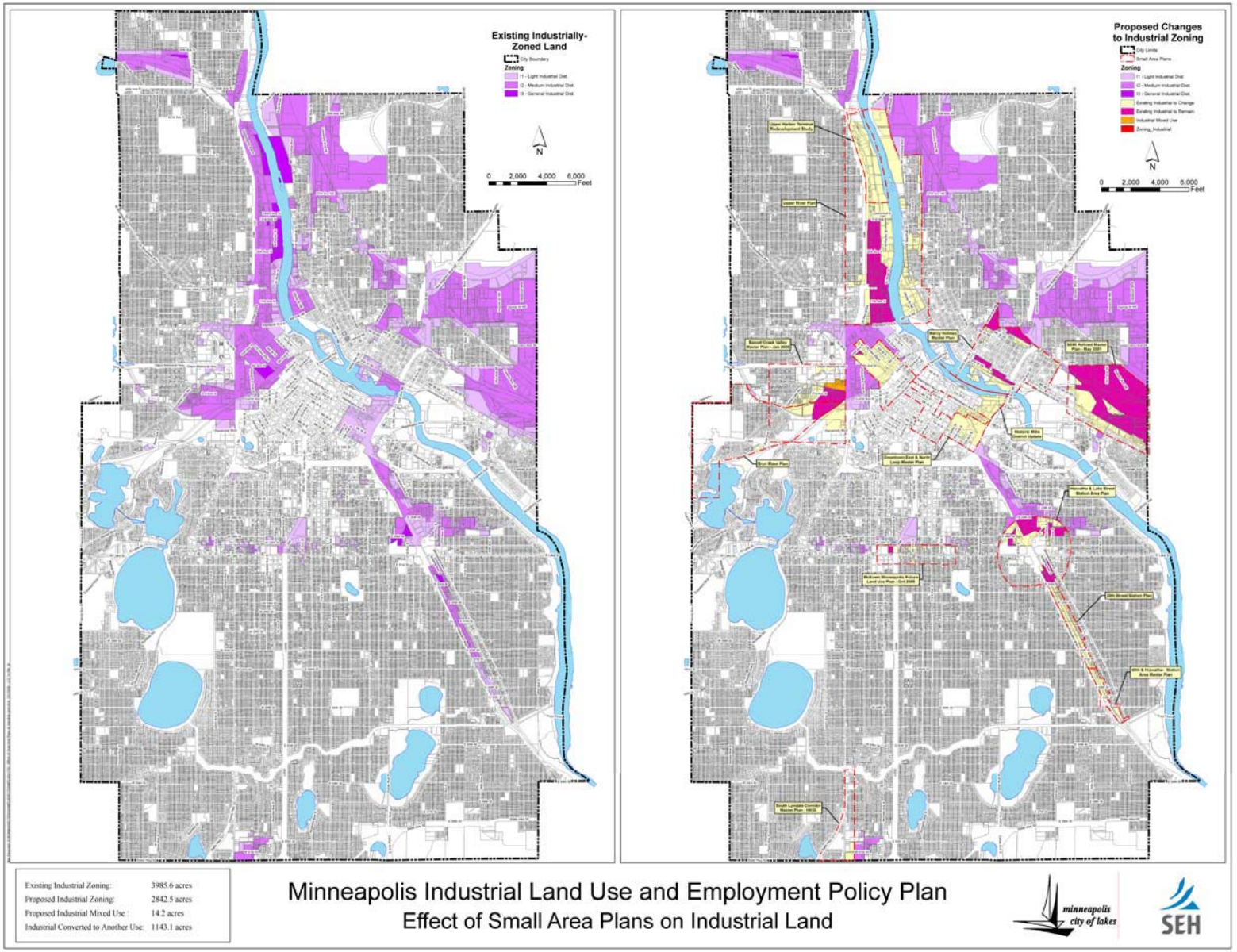
Source: City of Minneapolis, Maxfield Research Inc.

Site-Specific Plans

Development objectives for a specific site or relatively small area are designated through a site-specific plan. These objectives are used to review development proposals for the site and can be included as a portion of a larger master plan or small area plan. An example is the Development Objectives for the North Nicollet Mall.

Effects of Small Area Plans

Several small area plans have been adopted. However, many of the existing plans are still at different points in the City's review process. As a part of this study, SEH Inc. conducted an analysis to determine the change in industrial land if all of these plans were adopted. The amount of industrial land will be reduced by 31% if the small area plans are implemented. The map and inset table that follow show how these plans would affect industrial zoned land in Minneapolis.


Existing Industrially-Zoned Land
Proposed Changes to Industrial Zoning
Zoning
I1 - Light Industrial Dist.
I2 - Medium Industrial Dist.
I3 - General Industrial Dist.
Existing Industrial to Change
Existing Industrial to Remain
Industrial Mixed Use
Zoning_Industrial
N
0 2,000 4,000 6,000 Feet
Existing Industrial Zoning: 3985.6 acres
Proposed Industrial Zoning: 2842.5 acres
Proposed Industrial Mixed Use : 14.2 acres
Industrial Converted to Another Use: 1143.1 acres
Minneapolis Industrial Land Use and Employment Policy Plan
Effect of Small Area Plans on Industrial Land
minneapolis city of lakes
SEH

Introduction

This section summarizes information gathered through neighborhood meetings, focus group sessions with industrial businesses, real estate brokers, and other professionals involved with industry and through a survey of industrial employers.

Public meetings were held in Fall 2005 to solicit input and information from neighborhood residents and local industrial businesses regarding industrial land uses in their areas. Meetings were held in four areas:

Humboldt/Camden Area
Upper River/Near North
Mid-City/SEMI
Hiawatha Corridor/Midtown Greenway

Public meetings were held in Spring 2006 to present initial study findings and to solicit feedback and additional input from neighborhood residents and businesses regarding the findings. Meetings were held in the following areas:

Humboldt/Camden
Upper River/Near North
Mid-City/SEMI
Hiawatha Corridor/Midtown Greenway
Downtown Core

Four focus group sessions were held with local industrial employers and businesses located in industrial areas. Input was solicited regarding ability to expand in the City, reasons for locating in Minneapolis, upgrading their facilities, ability to work with the City on changes to their sites, types of jobs provided, where workers live, worker mobility and skill levels, among others.

A focus group session was held with local real estate brokers to solicit input on industrial user needs, types of spaces desired, locational attributes of Minneapolis, among others.

Summary of Public Meetings - Fall Session

The Fall 2005 public meetings focused on soliciting input from residents and businesses regarding industrial uses in their local areas. Responses were diverse but in general, some patterns emerged from these sessions.

Residents and businesses were often concerned about conflicts between residential areas and business locations. These conflicts typically focused on the following items:

Visual Aesthetics/Operations
Noise
Land and Air Contamination

Health Concerns resulting from Contaminants
Heavy Truck Traffic in Residential Areas
Outside Storage and Visual Attractiveness of Industrial Users
Deferred Maintenance of Buildings

Economic Issues
Does the business provide jobs to local residents?
Where are employees coming from?
What is the value added of industrial businesses?
What will our economic landscape look like in 30 years and how will it affect industrial businesses?
Concern about retaining high paying jobs in our neighborhoods

Land Use/Planning Issues
Do not want heavy industrial uses in our neighborhoods
Prefer a focus on light industrial and medium industrial uses
Concern about low density of industrial uses, poor land utilization
Concern about suburban-looking buildings in an urban area
Concern about condominiums pushing out businesses in some areas
Concern about preserving locations for atypical users that do not "fit" in other areas (ex. Artists working in heavy materials, veterinary clinics, stone cutting/fabrication)

Summary of Public Meetings – Spring 2006

The Spring 2006 sessions solicited feedback from residents regarding the findings and preliminary recommendations.

Most comments supported the findings and recommendations, but additional questions and concerns were raised regarding:

- Preservation of areas to accommodate artists and other creative workers whose work requires a location with industrial zoning and incorporating opportunities for live/work settings in those areas.
- Densities of existing suburban-style industrial buildings;
- Types of uses allowed in industrial zoning (including churches and schools);
- The level of demand for industrial space in the City;
- The ability to develop multi-story industrial buildings rather than sprawling single-story structures;
- Fiscal impacts of this analysis;
- How much acreage has been lost over the past ten years?
- The effect of the ILUS recommendations on the current small area plans;
- Concerns by some residents in transition areas that there will always be some industrial uses in the neighborhood.
- How will the ILUS recommendations change current city processes?
- How will we actually measure the outcomes?

Employer Focus Groups

Employers' issues centered primarily on the expansion, operations and employment issues that they face. Most of those that attended the sessions felt strongly about continuing to operate in the City of Minneapolis. Several stated that they had investigated moving to other locations, but in the end decided to remain in Minneapolis for several reasons including:

- Central location
- Close proximity to customers
- Close proximity to sizeable labor pool

Employers also identified several challenges to remaining at their current locations including:

- No expansion space or other suitable location;
- Zoning and code requirements that inhibit expansion;
- Increasing land prices are pushing industrial businesses out of locations where condominiums are being developed;
- Do try to hire Minneapolis residents but more importantly, want to hire good qualified employees;
- Feel as though the planning process generally excludes businesses;

Employer Survey

Maxfield Research Inc. completed a survey of industrial businesses in Minneapolis. A total of 247 responses were received from 651 contacts made for an overall response rate of 38%. The following table shows the response rates by individual area (Zones correspond to the analysis areas):

ZONE

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Zone 1	7	2.8	2.8	2.8
	Zone 2	102	41.3	41.3	44.1
	Zone 3	73	29.6	29.6	73.7
	Zone 4	65	26.3	26.3	100.0
	Total	247	100.0	100.0	

68% of respondents stated they had been involved in the decision to locate the business at its current location; more than 99% indicated they would be involved in any decision to remain or relocate the business today.

3 Altogether, how many years has the company been in business?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1 1 to 19 years	70	28.3	28.3	28.3
	2 20 to 30 years	61	24.7	24.7	53.0
	3 31 to 50 years	55	22.3	22.3	75.3
	4 51 to more years	61	24.7	24.7	100.0
	Total	247	100.0	100.0	

The number of businesses responding to the survey was weighted fairly evenly across all age categories with a slightly higher percentage for companies that had been in business less than 20 years.

4 And, how many years at your current Minneapolis location?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1 Less than a year to 5 years	53	21.5	21.5	21.5
	2 6 to 14 years	64	25.9	25.9	47.4
	3 15 to 24 years	56	22.7	22.7	70.0
	4 25 or more	74	30.0	30.0	100.0
	Total	247	100.0	100.0	

Again, there was a relatively even weighting of how long businesses had been at their current Minneapolis location with a somewhat higher proportion of businesses at their current location for 25 years or more.

5 Is your company engaged mostly in:

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1 Manufacturing	81	32.8	32.8	32.8
	2 Printing	17	6.9	6.9	39.7
	3 Construction	35	14.2	14.2	53.8
	4 Service Business	83	33.6	33.6	87.4
	5 Other: (type)	31	12.6	12.6	100.0
	Total	247	100.0	100.0	

Most of the respondents are engaged in either manufacturing or service businesses which comprised 66% of the total responses.

6 Is the total size of your facility at this Minneapolis location...

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1 Less than 25,000 square feet	148	59.9	59.9	59.9
	2 Between 25,000 but less than 50,000 sq. ft.	47	19.0	19.0	78.9
	3 Between 50,000 but less than 75,000 sq. ft.	18	7.3	7.3	86.2
	4 Between 75,000 but less than 100,000 sq. ft.	8	3.2	3.2	89.5
	5 More than 100,000 sq. ft.	19	7.7	7.7	97.2
	6 Don't know	7	2.8	2.8	100.0
	Total	247	100.0	100.0	

Nearly 79% of those responding are operating in less than 50,000 square feet, with the majority (60%) operating in less than 25,000 square feet; nearly 8% of respondents are operating in more than 100,000 square feet.

7 Altogether, how many people does your firm employ at the Minneapolis location?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1 1 to 7 employees	54	21.9	21.9	21.9
	2 8 to 13 employees	74	30.0	30.0	51.8
	3 14 to 30 employees	60	24.3	24.3	76.1
	4 31 or more employees	59	23.9	23.9	100.0
	Total	247	100.0	100.0	

Total employment among respondents was very similar with between 24% and 30% of respondents falling into the four employment categories. The highest number of respondents (74) employed between 8 and 13 employees. About 24% employed 31 or more employees.

8 Which of these categories best describes the company's annual revenue:

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1 Less than $1 Million	53	21.5	21.5	21.5
	2 $1 Million to $5 Million	101	40.9	40.9	62.3
	3 Over $5 Million to $20 Million	54	21.9	21.9	84.2
	4 Over $20 Million to $50 Million	14	5.7	5.7	89.9
	5 More than $50 Million	10	4.0	4.0	93.9
	6 Don't know/Refused	15	6.1	6.1	100.0
	Total	247	100.0	100.0	

Most of the companies responding have annual business revenue of between $1 and $5 million, which is 42%. The second highest categories were virtually tied between Less than $1 million (21.5%) and Over $5 million to $20 million (21.9%).

Companies were asked to identify the top three reasons for choosing their current business location and then were asked to identify the single most important reason.

Among both questions, responses were generally similar. Top responses were:

Top three reasons for choosing current location:

Central, convenient location:	74 responses
Convenient freeway access	39 responses
Close proximity to customers	31 responses
Close proximity to owner's home	16 responses
Low/reasonable costs for space	14 responses

Single, most important reason for choosing current location:

Central Location	38 responses
Needed More Space	35 responses
Low/Reasonable Costs for Space	34 responses
Space well-suited to operations	17 responses
Close proximity to Customers	12 responses

11 Is the business considering a move to a new location any time in the future?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1 Yes	37	15.0	15.0	15.0
	2 No	177	71.7	71.7	86.6
	3 Maybe	30	12.1	12.1	98.8
	4 Don't know	3	1.2	1.2	100.0
	Total	247	100.0	100.0	

Most businesses that responded indicated they were not planning to move in the future. As shown on the table, only 15% of businesses said they were considering a move.

14 If your company moves from your current location, will that probably be in...

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1 Less than two years	23	9.3	34.3	34.3
	2 2 to 3 years	27	10.9	40.3	74.6
	3 4 to 5 years	7	2.8	10.4	85.1
	4 More than 5 years	5	2.0	7.5	92.5
	5 Refused	5	2.0	7.5	100.0
	Total	67	27.1	100.0	
Missing	System	180	72.9		
Total		247	100.0		

Companies that were considering a move in the future were asked about their timeframe to complete that move. Of those responding, 9.3% stated less than two years while 10.9% indicated within two to three years. This reflects that if the business is considering a move, it wants to move relatively quickly.

Most businesses that are considering a move indicated they would need roughly a 20% increase in the amount of space to consider moving. Approximately 9% of respondents indicated a need for up to another 15,000 square feet if they were to make a move.

16a About how many more do you see being hired in the first two years after moving?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1 1 to 3 employees	7	2.8	21.9	21.9
	2 4 to 5 employees	10	4.0	31.3	53.1
	3 6 to 9 employees	5	2.0	15.6	68.8
	4 10 or more employees	10	4.0	31.3	100.0
	Total	32	13.0	100.0	
Missing	System	215	87.0		
Total		247	100.0		

Companies that indicated they would consider moving also indicated they would need to hire new employees. The number of new hires was split evenly between those that would need to hire 4 to 5 new employees (4%) in the first two years to those that would need to hire 10 or more employees (4%).

18 (First Mention) Next, I would like to ask you how easy is it to find the types of employees you need. Please tell me which of these statements describes your situation:

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1 We REALLY NEVER HAVE A PROBLEM finding employees for all our	110	44.5	44.5	44.5
	2 SOMETIMES WE HAVE PROBLEMS filling job vacancies or,	80	32.4	32.4	76.9
	3 We have SOME JOBS THAT ARE A CONTINUING CHALLENGE to find pe	53	21.5	21.5	98.4
	4 None of the above	4	1.6	1.6	100.0
	Total	247	100.0	100.0	

20 What proportion of your employees would you estimate live in the City of Minneapolis, would you say...

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1 Less than 10%	74	30.0	30.0	30.0
	2 10% to 19%	26	10.5	10.5	40.5
	3 20% to 29%	28	11.3	11.3	51.8
	4 30% to 39%	8	3.2	3.2	55.1
	5 40% to 49%	30	12.1	12.1	67.2
	6 More than 50%	76	30.8	30.8	98.0
	7 Not Sure/Refused	5	2.0	2.0	100.0
	Total	247	100.0	100.0	

The following two questions indicate a lack of awareness of the programs available to businesses in the City of Minneapolis. Many businesses choose to avoid financial and other assistance programs if these programs come with too many requirements. Clearly however, respondents did not feel as though they had knowledge of programs that may help them to grow their businesses.

On the job training is an increasing need among businesses that are looking for qualified, well-educated employees. Many times the employee will have a satisfactory education base, but does not have the specific skill levels employers want. Some of these skills could perhaps be gained through joint partnerships between the City and the employer to train less skilled workers for these positions.

Q21a Are you aware of The City's financial assistance programs for business expansion?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1 Yes	57	23.1	23.1	23.1
	2 No	190	76.9	76.9	100.0
	Total	247	100.0	100.0	

Q21b Are you aware of The City's job training programs?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1 Yes	94	38.1	38.1	38.1
	2 No	153	61.9	61.9	100.0
	Total	247	100.0	100.0	

Summary

The following summarizes our findings from the public participation components. Residents were concerned about some visual aesthetics, contamination and noise, and truck traffic. They were also concerned however, about having jobs located in the neighborhood and accessible via options other than driving a car.

Tax impacts, future technology impacts and the value added to the city's economy were also considered important and preserving areas for primarily light and medium industrial businesses.

Local real estate brokers indicated there is demand for industrial land in the City for users requiring 25,000 to 30,000 square feet or less and a new for some new construction. They also mentioned that land costs are rising dramatically making it difficult for industrial users to afford. Contributing to this are strong shifts in the market value of industrial land occurring due to residential conversion in areas close to the core;

Employers locate in Minneapolis primarily because it offers: a convenient central location, close to major transportation arteries and in close proximity to their customer base. More affordable building costs were also cited by a number of businesses.

Introduction

The purpose of this section is to review the City's redevelopment efforts in the areas of analysis. These findings lead to more specific recommendations on industrial redevelopment strategies which are described in the Conclusions and Recommendations section.

In order to better meet the needs of industrial businesses, cities have instituted a number of changes outlined in their industrial land use studies. These responses can be organized into five categories:

- Zoning and Planning
- Financial Assistance
- Site Assembly and Acquisition
- Targeted Infrastructure Investments
- Workforce Development

Maxfield Research conducted interviews with senior staff members in the planning and economic development departments, and industrial business advocates, in Baltimore, Boston, Chicago, New York, and Portland. Multiple attempts were made to reach interviewees with the City of San Francisco, but the inquiries were unanswered.

Policy Responses

1. Zoning and Planning

All six cities are pursuing zoning and planning changes to protect industrial space, although many of the cities are building off existing protective zoning practices.

For example, Portland proactively set aside industrial land early on. The City passed an industrial sanctuary policy in 1980.
However, the 2003 industrial land use study prompted regional zoning that further strengthened the established industrial areas.

The City of Portland also followed-up its industrial land use study with an industrial land atlas that profiles eight industrial districts in order to provide baseline data for industrial space developers and future planning.

The follow-up zoning responses vary in restrictiveness. New York City's Industrial Business Zones (IBZs) indicate a policy commitment by the City not to rezone industrial parcels to residential uses. However, non-industrial commercial uses are still allowed as-of-right in IBZs. Chicago's Planned Manufacturing Districts (PMDs), in contrast, codify permitted industrial uses in the zoning code.

Tables 8.1 and 8.2 illustrate the spectrum of zoning and planning tools utilized.

FIGURE 8.1
ZONING AND PLANNING RESPONSES
SELECTED CITIES WITH INDUSTRIAL LAND USE PLANS
2005

City	New Responses	Existing Responses
Baltimore	• In 2004, adopted city-wide **Change-of-Use (Re-Zoning) Guidelines** for industrial parcels (study rec.). Call for retaining industrial sites "that can meet the needs of industry and compete for users/tenants." • Also created **Maritime Industrial Zone Overlay District** (MIZOD) around harbor in 2004. MIZOD is an industrial protection zone, in which office uses are not permitted unless accessory to industrial user.	• Two Urban Renewal Areas, located south and east of the harbor, have zoning protections that prioritize industrial uses, but both are being re-vamped to allow more non-industrial uses. • Standard industrial zoning.
Boston	• Introducing zoning restrictions on non-industrial users in industrial areas outside Marine Industrial Park and using commercial space to buffer residential properties.	• City owns Marine Industrial Park**.** Ownership side steps market pressure to convert and zoning restricts users to maritime industrial businesses. • Standard industrial zoning.
Chicago	• In 2004, required all re-zoning in industrial corridors must go before Plan Commission. • B/w 2003 and 2005, created 8 **Planned Manufacturing Districts** (PMDs) in corridors. PMDs permit only industrial uses and compatible uses. Cannot re-zone individual parcels in PMDs.	• Established 24 protected industrial corridors in 1992-1995. • Five PMDs were established before study. • Standard industrial zoning.
New York	• In 2005, created Office of Industrial and Manufacturing Businesses that will establish **Industrial Business Zones** (IBZs). IBZs are only a policy statement not to rezone industrial parcels. • Proposal before City Council to create Industrial Employment Districts that limit non-industrial uses currently allowed on industrially-zoned land.	• Standard industrial zoning. Although many consider "M-zones" to be very permissive.
Portland	• 2003 Industrial Land Inventory was used in proposing boundaries of **Regionally Significant Industrial Areas** (RSIAs). In RSIAs, rezoning undergoes additional regional review and non-industrial commercial use is limited to 3,000 sq. ft. • Created **Industrial District Atlas** (2004) to profile characteristics of 8 industrial district.	• Established Industrial Land Sanctuary Policy in 1980. Protects industrial districts in Portland comprehensive plan and zoning code. • Standard industrial zoning.
San Francisco	• In 2001, established **Industrial Protection Zones** (IPZs) that ban residential, live/work, and office development or conversion. Precursor was Industrial Development Guidelines. • In 2005, published supply/demand study for PDR businesses in eastern neighborhoods.	• Standard industrial zoning, which is increasingly re-zoned for mixed-use and residential development in neighborhood master plans.
Minneapolis	• N/A	• Standard industrial zoning -I1,I2,I3.

Source: Maxfield Research Inc.

TABLE 8.2
SPECTRUM OF ZONING AND PLANNING RESPONSES TO INDUSTRIAL BUSINESS NEEDS
SELECTED CITIES WITH INDUSTRIAL LAND USE PLANS
2005

Less Restrictive	Designated Area w/Geographic Boundaries Primary Zoning is Industrial	Limits Non-Industrial Uses	Policy Statement Not to Re-Zone	Additional Review for Re-Zonings	Re-zoning Restrictions	Ban Non-Industrial Uses: Residential	Ban Non-Industrial Uses: Stand-Alone Office	More Restrictive
City								
Chicago	Industrial Corridors[4]			Industrial Corridors[4]	Industrial Corridors[4]			
	Planned Manufacturing Districts[3]	Planned Manufacturing Districts[3]				Planned Manufacturing Districts[3]		
Portland	Regionally Significant Industrial Areas[6]	Regionally Significant Industrial Areas[6]		Regionally Significant Industrial Areas[6]				
Baltimore	Maritime Industrial Zone Overlay District[8]	Maritime Industrial Zone Overlay District[8]			City-Wide Change-of-Use Guidelines for Industrial Areas	Maritime Industrial Zone Overlay District[8]		
Boston	Marine Industrial Park[2]	Marine Industrial Park[2]						
San Francisco	Industrial Protection Zones				Industrial Protection Zones[7]	Industrial Protection Zones[7]		
New York City	Industrial Business Zones[1]	Industrial Business Zones[1]	Industrial Business Zones[1]					

[1] = Does not include proposed Industrial Employment Districts.

[2] = Established in 1977, so not a direct policy response to Industrial Land Use Study (2000)

[3] = Five PMDs were in place before industrial land use study. Eight more PMDs were created between 2003-2005 after industrial land use study. PMDs make "industrial use the priority and restrict or prohibit uses that impeded the functions of industrial operations."

[4] = All re-zonings in Industrial Corridors must go before Planning Commission. In addition, re-zonings in PMDs cannot be individual properties and must be compatible land uses.

[5] = Re-zonings undergo review through regional planning body.

[6] = RSIAs limit size of commercial development in industrial-zoned areas, but do not limit industrial-to-residential uses.

[7] = "No residential or live/work dev. or conversion to such uses…no new office development or conversion to office shall be allowed"

[8] = In MIZOD, office uses are only permitted if accessory to industrial uses. No residential uses allowed.

Source: Maxfield Research Inc.

2. Financial Assistance

Financial assistance (Table 8.3) is emerging as a common tool for fostering local business expansion and attracting outside industrial firms. While all the cities used tax incentives and municipal bonds to support overall business growth, a handful of cities specifically reserve funds for industrial businesses. Boston, Chicago, New York, and Minneapolis are making financial assistance exclusively available to industrial firms.

TABLE 8.3
FINANCIAL ASSISTANCE PROGRAMS
SELECTED CITIES WITH INDUSTRIAL LAND USE PLANS
2005

City	Exclusively Targeted to Industrial Users	Available to all Businesses including Industrial Users
Baltimore	• None identified.	• Loan programs: revolving loan fund, EZ 50/50 loan fund, G.O. bond financing. • EZ property tax abatement. • TIF is available, but primarily used for commercial uses outside of harbor. • Brownfield re-development financing fund and property tax credit.
Boston	• In 2002, established Back Streets Program: comprehensive, strategic use of land, job training, and financial resources to retain and grow eight industrial areas. • Back Streets markets low-interest loans from city to industrial firms. $1M was added to low-interest loan fund for Back Streets firms. • Tax-exempt bond financing for industrial firms to expand or locate in Boston.	• Empowerment Zone tax credits • Enterprise Zone bond financing
Chicago	• Tax-increment financing (TIF) districts are sited in industrial corridors. • "Industrial Bonds" or tax-exempt bond financing for industrial firms. • Business visitation program: partnership b/w ComEd utility and City of Chicago to conduct on-site interviews with employers in order to identify barriers to growth. • Plant Optimization Studies: consultants help factories utilize space better. City and utility sponsored base survey of 1,200 firms. • Laboratory Facilities Fund: 25% of base construction costs (up to $1.25M).	• Empowerment Zone and Enterprise Zone tax credits and bond financing. • Loan programs: bank loan participation, low-interest loans and micro-loans. • Façade Improvement Program • Small Business Improvement Fund: TIF for capital improvements at small and mid-sized industrial and commercial firms. • Reduced property tax assessments for industrial and commercial uses in specified areas. • Seawall Improvement Fund: TIF for seawall investments. • Business Express Program: assigns an account manager to refers businesses to loan programs and EZ tax credits.

FIGURE 8.3 (CONT.)
FINANCIAL ASSISTANCE PROGRAMS
CITIES WITH INDUSTRIAL LAND USE PLANS
2005

City	Exclusively Targeted to Industrial Users	Available to all Businesses including Industrial Users
New York	• Office of Industrial and Manufacturing Businesses will offer relocation tax credits. • In-Place Industrial Parks (IPIPs) targeted for financial assistance programs. IPIPs created in late 1980's, but correspond to new IBZs. • NYC Industrial Development Authority offers low-cost tax-exempt bond financing and tax abatement programs. • Proposed revolving fund for industrial dev. -developer fees from conversion projects.	• Empire/Empowerment Zone tax credits. • Commercial Expansion Program: tax reduction for new, renewal, or expansion leases in abatement zones. • Industrial and Commercial Incentive Program: property tax exemption for renovated and newly constructed buildings.
Portland	• None identified.	• Loan Programs: low-interest/forgivable loans for qualifying businesses. • Economic Opportunity Fund finances expansion and relocation to urban renewal areas. • N/NE Enterprise Zone: property tax abatement on new investment. • Storefront Improvement Program: grants for exterior improvement.
San Francisco	• None identified.	• Mayor's Office of Community Dev. administers micro-enterprise loans and small business loans. • Enterprise Zone tax credits/financing.
Minneapolis	• A number of TIF districts are sited within industrial areas of Minneapolis. • Industrial Revenue Bonds: tax-exempt bonds issued to finance acquisition, construction of industrial space or equip. Low-interest loans range from $500,000 to $10 million. • Common Bond Fund Program: tax-exempt bonds for same purposes, but available to owner-occupied manufacturing companies in Hennepin County.	• 2% Loan Fund & Com. Corridor/Com. Node 2% Loan Fund: low-interest loans for building and equipment improvements. Minneapolis businesses and property owners are eligible. • Capital Acquisition Loan Fund: low-interest financing for small commercial and industrial rehab. • Business Development Loan Fund: loans w/flexible terms & partial forgiveness for redevelopment. • Capital Investment Fund: bridge and long-term loans for capital investments. • Community Econ. Development Fund: financing for community com. redev. • Working Capital Loan Program: purchase or guarantee loans -including light manufacturing

Source: Maxfield Research Inc.

3. Site Acquisition and Assembly

Cities also assemble and acquire sites for redevelopment in order to bring more industrial land to the market and provide industrial businesses with expansion or relocation space.

All six cities play a role in positioning sites for reuse, but cities vary in how actively they try to acquire parcels for redevelopment.

San Francisco focuses on bringing together firms and available sites through its Prospector listing service. Chicago is starting to proactively use tax reactivation and lien foreclosure to push land being held speculatively back on to the market. Minneapolis acquires parcels for reuse. Table 8.4 highlights the site acquisition and assembly roles of the inventoried cities.

TABLE 8.4
SITE ACQUISITION AND ASSEMBLY ROLE
SELECTED CITIES WITH INDUSTRIAL LAND USE PLANS
2005

City	Programs
Baltimore	• Baltimore Development Corporation acquires properties and then works as a broker with incoming developers and businesses to reposition the properties as industrial, commercial, or residential development.
Boston	• Back Streets program acts more like a broker rather than developer -helping match businesses with sites. Although might be involved in developing an industrial park. • Boston Redevelopment Authority acquires and positions properties for industrial, commercial, and residential redevelopment.
Chicago	• City uses condemnation, tax reactivation, lien foreclosure to acquire and assemble industrial parcels. Now applying in more areas with retail and residential speculation.
New York	• NYC Economic Development Commission sells city-owned parcels. Acquisition and assembly role is unclear.
Portland	• Portland Development Commission runs a commercial properties listing service and sells city-owned parcels.
San Francisco	• City operates Prospector website that maps and profiles available industrial and commercial sites. Prospector also creates demographic, consumer expenditure, and workforce reports for specific sites.
Minneapolis	• CPED acquires and assembles underdeveloped industrial, commercial, and residential parcels. TIF funds can be used for site acquisition and preparation costs. • MILES program acquires and repositions blighted land suitable for industrial use.

Source: Maxfield Research Inc.

4. Targeted Infrastructure Investments

The majority of cities are also targeting and coordinating infrastructure investments in order to maximize their effectiveness to industrial users. Boston, Chicago, Portland, and New York are making sure capital investments are consistent with industrial needs.

For example, Portland is developing a Harbor Reinvestment Strategy and Freight Mobility Master Plan to understand where and how to make infrastructure investments. Boston is making $5 million in infrastructure investments through its Back Streets program. Table 8.5 documents each city's use of infrastructure upgrades to retain industrial businesses.

TABLE 8.5
TARGETED INFRASTRUCTURE INVESTMENTS
SELECTED CITIES WITH INDUSTRIAL LAND USE PLANS
2005

City	Responses
Baltimore	• Baltimore Development Commission is involved in coordinating infrastructure investments, but not targeting investments to Maritime IPZ.
Boston	• Back Streets coordinating $5M in infrastructure investments for industrial users.
Chicago	• City targets industrial infrastructure investments to corridors (e.g. bridge replacement, viaduct, clearance improvements, intersection improvements). • City also focuses state and federal industrial infrastructure requests on corridors.
New York	• Office of Industrial and Manufacturing Businesses will recommend infrastructure investments and coordinate enhanced sanitation services for IBZ's.
Portland	• Developing Harbor Reinvestment Strategy that coordinates infrastructure investments by Port of Portland, Portland Development Commission, and City. • Developing Freight Mobility Master Plan that will alter street design and street improvements to better meet needs of freight traffic.
San Francisco	• None identified.
Minneapolis	• CPED making effort to coordinate public infrastructure investments with industrial business needs (e.g. Kasota Drive in northern part of SEMI).

Source: Maxfield Research Inc.

5. Workforce Development

Cities are also trying to meet the labor needs of industrial employers. In addition to funding industrial training programs, cities and city-funded organizations are acting as brokers between employers, training programs, and job seekers.

Baltimore, Boston, Chicago, and New York all play brokering roles. For example, the Baltimore Development Commission and Mayor's Office of Economic Development are working together to meet industrial employer needs.

Table 8.6 summarizes these efforts to meet the labor needs of the industrial sector.

TABLE 8.6
WORKFORCE DEVELOPMENT ROLE
SELECTED CITIES WITH INDUSTRIAL LAND USE PLANS
2005

City	Programs
Baltimore	• City funds industrial job training programs through non-profit providers. • Baltimore Development Commission and Mayor's Office of Economic Development joining to meet employers' workforce and development needs.
Boston	• City funds industrial job training programs through non-profit providers. • Back Streets acts as an intermediary between industrial firms and job training program graduates through Boston's Career Centers. Also helps employers access funds for employee education and English-as-a-Second-Language classes.
Chicago	• City funds industrial job training programs through non-profit providers. • Mayor's Office of Workforce Development acts as a broker between job-seekers and employers, including industrial employers. Also administer TIF funds for employee education costs. • Jane Addams Resource Corporation (JARC), a local CDC, offers metalforming job training for residents and works to improve the competitiveness of local manufacturers. JARC holds forums for manufacturers to address industry issues and developed a metalforming industry assessment tool.
New York	• City funds industrial job training programs through non-profit providers. • Department of Small Business Services is matching employers and job seekers, and working to customize training programs to employer needs, including industrial firms.
Portland	• Portland Development Commission funds industrial job training programs through non-profit providers.
San Francisco	• City funds industrial job training programs through non-profit providers.
Minneapolis	• City funds industrial job training programs through Minneapolis Employment and Training Program.

Source: Maxfield Research Inc.

Do these responses work?

The relative effectiveness of these responses is unknown. From zoning measures to job training, cities consistently did not track the associated number of jobs created, firms retained, wages levels, or tax revenue generated.

Maxfield Research, however, obtained anecdotal evidence about the use of financial assistance in Chicago and Regionally Significant Industrial Area zoning in Portland.

The City of Chicago volunteered anecdotal evidence showing job growth associated with using financing tools to retain an industrial firm. Both cases follow.

Chicago Anodizing is a metal forming plant in the Northwest PMD of Chicago. The City conducted soil remediation, sold the site, and authorized $500,000 in property tax abatement. The 15,000 sq. ft. expansion retained 65 jobs and created 15 jobs.

Aramark is a uniform laundry business in the Stockyards PMD of Chicago. The City conducted $1 million in soil remediation, sold the site for $1, and authorized a property tax break. The 125,000 sq. ft. facility retained 230 jobs and created 100 jobs.

It's still unclear whether Chicago Anodizing or Aramark would have relocated outside of Chicago without the financial incentives. Economic development practitioners and academics, in fact, debate the effectiveness of tax incentives in retaining or growing jobs.

The City of Portland contends that RSIAs and the corresponding municipal zoning code effectively control non-industrial commercial development through space limitations. Commercial users are limited to 3,000 square feet and building size is capped at 20,000 square feet.

The City's industrial atlas found that only 5% of Portland's 14,000 acres of industrial-zoned land is used by non-industrial businesses. The size limitation restricts commercial businesses' scale and impact on industrial users.

Introduction

This section provides a description of the industry scorecard and provides recommendations. This section also suggests outcome measures in order to track the effectiveness of recommendations.

Industrial Scorecard: A New Way of Looking at Industrial Businesses and Demand

Three Segments

Each industry's employment in Minneapolis, projected job growth, proportion of living wage jobs, average job density, and required educational attainment is presented by industry in the Industrial Scorecard in Table 9.1. Also included is whether or not the industry has been identified in one of the clusters in the previous section.

Three segments of industrial businesses emerge when we take the above observations and look at the industry-level: 21st Century industrial jobs; Opportunity industrial jobs; Run of the Mill industrial jobs. The critical grouping components are required educational attainment and percentage of jobs starting at a living wage.

Two key points to consider:

1) These are groupings based on general characteristics, analyzed from national and Metro Area employment data and aggregated to better understand how these employers provide economic benefits to Minneapolis. Not all employers in these industries share these characteristics.

2) The City must continue to stay abreast of industry trends for the Industrial Scorecard to remain relevant.

21st Century Industrial Jobs

These industries have higher percentages of jobs requiring a four-year degree along with higher percentages of jobs starting above a living wage. In general, 21st Century industrial jobs are the production part of the knowledge-based economy. They are industrial jobs linked to scientific and University-based research. While many of the jobs in these industries require four-year degrees, significant portions require two-year and technical degrees.

21st Century industrial employers have higher employment densities for their job sites than other industrial users. Shown in Appendix A, the average number of employees per acre for these industries is 44, compared to 28 for Opportunity employers and 27 for Run of the Mill employers.

TABLE 9.1
INDUSTRIAL INDUSTRY "SCORE CARD"

NAICS Code	NAICS Description	Identified Cluster	Metro Area Proj. Growth Rate	2004 Est. Mpls. Empl.	% of Jobs Starting at a Living Wage	% of Jobs Req. 4-Year Deg.	Est. Empl. Per Acre	Change in Metro Acreage 02-'12
			"21st Century Industrial Employment"					
4234	Professional and Commercial Equipment and Supplies Merchant Wholesalers		8%	1,356	77%	33%	20	51
3345	Navigational, Measuring, Electromedical, and Control Instruments Manufacturing	Machinery and metal working	4%	1,143	76%	44%	30	41
3254	Pharmaceutical and Medicine Manufacturing		41%	3	75%	39%	30	30
5417	Scientific Research and Development Services	Profesional, scientific, and technical	27%	1,841	76%	68%	60	27
5413	Architectural, Engineering, and Related Services	Profesional, scientific, and technical	8%	3,392	90%	57%	60	12
3342	Communications Equipment Manufacturing		5%	43	66%	40%	30	6
5179	Other Telecommunications		30%	76	78%	34%	60	5
2372	Land Subdivision		11%	75	64%	36%	30	2
5172	Wireless Telecommunications Carriers (except Satellite)		12%	50	72%	34%	60	2
5173	Telecommunications Resellers		2%	206	54%	57%	60	0
5122	Sound Recording Industries	Advertising and telecomm.	5%	108	55%	46%	60	0
3365	Railroad Rolling Stock Manufacturing		0%	0	51%	42%	30	0
3346	Manufacturing and Reproducing Magnetic and Optical Media		-6%	82	59%	34%	30	-3
3364	Aerospace Product and Parts Manufacturing		-23%	0	75%	52%	30	-5

Continued

TABLE 9.1
INDUSTRIAL INDUSTRY "SCORE CARD"

NAICS Code	NAICS Description	Identified Cluster	Metro Area Proj. Growth Rate	2004 Est. Mpls. Empl.	% of Jobs Starting at a Living Wage	% of Jobs Req. 4-Year Deg.	Est. Empl. Per Acre	Change in Metro Acreage 02-'12
			"21st Century Industrial Employment" (Continued)					
5111	Newspaper, Periodical, Book, and Directory Publishers	Printing and publishing	-3%	3,530	64%	39%	60	-6
5174	Satellite Telecommunications		-41%	121	78%	34%	60	-7
5171	Wired Telecommunications Carriers		-12%	1,756	78%	39%	60	-12
3344	Semiconductor and Other Electronic Component Manufacturing	Computer and software	-23%	273	63%	39%	30	-54
3341	Computer and Peripheral Equipment Manufacturing	Computer and software	-40%	31	61%	57%	30	-84
"21st Century Industrial Employment" Averages			**0%**	**741**	**69%**	**43%**	**44**	**0**
			"Opportunity Industrial Employment"					
2382	Building Equipment Contractors		20%	1,437	89%	8%	30	143
4841	General Freight Trucking		18%	248	79%	7%	15	101
2381	Foundation, Structure, and Building Exterior Contractors		24%	927	92%	5%	30	92
2383	Building Finishing Contractors		23%	609	85%	9%	30	88
3391	Medical Equipment and Supplies Manufacturing	Medical device	22%	633	60%	17%	30	83
4236	Electrical and Electronic Goods Merchant Wholesalers		21%	1,237	71%	25%	20	61
3219	Other Wood Product Manufacturing		30%	342	50%	8%	30	61
3261	Plastics Product Manufacturing		16%	290	52%	10%	30	55
4251	Wholesale Electronic Markets and Agents and Brokers		8%	1,202	67%	17%	20	46

Continued

TABLE 9.1
INDUSTRIAL INDUSTRY "SCORE CARD"

NAICS Code	NAICS Description	Identified Cluster	Metro Area Proj. Growth Rate	2004 Est. Mpls. Empl.	% of Jobs Starting at a Living Wage	% of Jobs Req. 4-Year Deg.	Est. Empl. Per Acre	Change in Metro Acreage 02-'12
			"Opportunity Industrial Employment" (Continued)					
2362	Nonresidential Building Construction		15%	1,403	90%	17%	30	44
4237	Hardware, and Plumbing and Heating Equipment and Supplies Merchant Wholesalers		22%	493	59%	14%	20	39
2361	Residential Building Construction		13%	1,090	85%	15%	30	39
4885	Freight Transportation Arrangement		28%	98	63%	19%	15	37
4238	Machinery, Equipment, and Supplies Merchant Wholesalers		7%	894	70%	14%	20	32
3339	Other General Purpose Machinery Manufacturing	Machinery and metal working	15%	1,159	72%	22%	30	32
2389	Other Specialty Trade Contractors		16%	102	86%	9%	30	27
4842	Specialized Freight Trucking		15%	104	72%	7%	15	25
3335	Metalworking Machinery Manufacturing		16%	76	84%	15%	30	20
4233	Lumber and Other Construction Materials Merchant Wholesalers		11%	471	58%	13%	20	17
4235	Metal and Mineral (except Petroleum) Merchant Wholesalers		15%	320	64%	14%	20	15
3372	Office Furniture (including Fixtures) Manufacturing	Machinery and metal working	22%	376	58%	12%	30	15
3334	Ventilation, Heating, Air-Conditioning, and Commercial Refrigeration Equipment Manufacturing	Machinery and metal working	10%	233	62%	15%	30	14
3333	Commercial and Service Industry Machinery Manufacturing		13%	30	68%	31%	30	14
4854	School and Employee Bus Transportation		4%	206	81%	5%	15	14

Continued

TABLE 9.1
INDUSTRIAL INDUSTRY "SCORE CARD"

NAICS Code	NAICS Description	Identified Cluster	Metro Area Proj. Growth Rate	2004 Est. Mpls. Empl.	% of Jobs Starting at a Living Wage	% of Jobs Req. 4-Year Deg.	Est. Empl. Per Acre	Change in Metro Acreage 02-'12
			"Opportunity Industrial Employment" (Continued)					
3273	Cement and Concrete Product Manufacturing		22%	185	80%	9%	30	13
5175	Cable and Other Program Distribution		38%	362	85%	17%	60	13
4242	Drugs and Druggists' Sundries Merchant Wholesalers		15%	320	66%	18%	20	13
4241	Paper and Paper Product Merchant Wholesalers		11%	502	59%	15%	20	12
5629	Remediation and Other Waste Management Services		52%	96	77%	22%	50	12
4882	Support Activities for Rail Transportation		25%	18	54%	21%	15	10
4246	Chemical and Allied Products Merchant Wholesalers		16%	290	68%	17%	20	10
5621	Waste Collection		28%	122	81%	9%	50	9
2371	Utility System Construction		11%	82	89%	10%	30	9
5324	Commercial and Industrial Machinery and Equipment Rental and Leasing	Computer and software	10%	54	63%	26%	20	9
4248	Beer, Wine, and Distilled Alcoholic Beverage Merchant Wholesalers		12%	19	63%	15%	20	8
4889	Other Support Activities for Transportation		137%	20	54%	21%	15	8
4239	Miscellaneous Durable Goods Merchant Wholesalers		5%	488	56%	14%	20	7
3366	Ship and Boat Building		114%	0	59%	28%	30	7
3371	Household and Institutional Furniture and Kitchen Cabinet Manufacturing		7%	92	54%	7%	30	7

Continued

TABLE 9.1
INDUSTRIAL INDUSTRY "SCORE CARD"

NAICS Code	NAICS Description	Identified Cluster	Metro Area Proj. Growth Rate	2004 Est. Mpls. Empl.	% of Jobs Starting at a Living Wage	% of Jobs Req. 4-Year Deg.	Est. Empl. Per Acre	Change in Metro Acreage 02-'12
			"Opportunity Industrial Employment" (Continued)					
8113	Commercial and Industrial Machinery and Equipment (except Automotive and Electronic) Repair and Maintenance	Computers and software	27%	191	81%	12%	50	6
3353	Electrical Equipment Manufacturing	Machinery and metal working	6%	193	57%	19%	30	5
3369	Other Transportation Equipment Manufacturing		33%	0	65%	22%	30	5
3326	Spring and Wire Product Manufacturing		19%	29	64%	12%	30	4
4232	Furniture and Home Furnishing Merchant Wholesalers		3%	289	54%	16%	20	4
4884	Support Activities for Road Transportation		7%	83	57%	8%	15	4
3255	Paint, Coating, and Adhesive Manufacturing		8%	350	69%	22%	30	3
3322	Cutlery and Handtool Manufacturing	Machinery and metal working	12%	43	68%	13%	30	3
3111	Animal Food Manufacturing		14%	39	57%	14%	30	1
3271	Clay Product and Refractory Manufacturing		50%	26	64%	13%	30	1
3336	Engine, Turbine, and Power Transmission Equipment Manufacturing	Machinery and metal working	5%	79	81%	21%	30	1
3241	Petroleum and Coal Products Manufacturing		2%	289	80%	24%	30	1
3313	Alumina and Aluminum Production and Processing		10%	0	69%	12%	30	1

Continued

TABLE 9.1
INDUSTRIAL INDUSTRY "SCORE CARD"

NAICS Code	NAICS Description	Identified Cluster	Metro Area Proj. Growth Rate	2004 Est. Mpls. Empl.	% of Jobs Starting at a Living Wage	% of Jobs Req. 4-Year Deg.	Est. Empl. Per Acre	Change in Metro Acreage 02-'12
			"Opportunity Industrial Employment" (Continued)					
2212	Natural Gas Distribution	Utilities	2%	1,067	76%	31%	40	1
3252	Resin, Synthetic Rubber, and Artificial Synthetic Fibers and Filaments Manufacturing	Computers and Software	12%	13	74%	22%	30	1
2213	Water, Sewage and Other Systems	Utilities	9%	370	83%	18%	40	0
3312	Steel Product Manufacturing from Purchased Steel	Machinery and metal working	2%	342	67%	14%	30	0
3274	Lime and Gypsum Product Manufacturing		6%	2	69%	10%	30	0
3251	Basic Chemical Manufacturing	Printing and publishing	0%	7	87%	26%	30	0
4821	Rail Transportation		-24%	390	73%	19%	15	0
4883	Support Activities for Water Transportation		-19%	21	53%	29%	15	0
3279	Other Nonmetallic Mineral Product Manufacturing		-8%	0	69%	10%	30	0
3262	Rubber Product Manufacturing		-2%	239	57%	17%	30	0
3315	Foundries	Machinery and metal working	0%	437	77%	9%	30	0
3314	Nonferrous Metal (except Aluminum) Production and Processing		-3%	14	64%	16%	30	0
3331	Agriculture, Construction, and Mining Machinery Manufacturing		-1%	0	74%	18%	30	-1
3211	Sawmills and Wood Preservation		-16%	0	52%	9%	30	-1
3325	Hardware Manufacturing		-26%	1	56%	14%	30	-1
3221	Pulp, Paper, and Paperboard Mills		-8%	1	73%	14%	30	-1

Continued

TABLE 9.1
INDUSTRIAL INDUSTRY "SCORE CARD"

NAICS Code	NAICS Description	Identified Cluster	Metro Area Proj. Growth Rate	2004 Est. Mpls. Empl.	% of Jobs Starting at a Living Wage	% of Jobs Req. 4-Year Deg.	Est. Empl. Per Acre	Change in Metro Acreage 02-'12
			"Opportunity Industrial Employment" (Continued)					
3343	Audio and Video Equipment Manufacturing		-15%	29	50%	30%	30	-1
2379	Other Heavy and Civil Engineering Construction		-7%	64	84%	18%	30	-1
3253	Pesticide, Fertilizer, and Other Agricultural Chemical Manufacturing		-30%	0	78%	23%	30	-1
3259	Other Chemical Product and Preparation Manufacturing	Printing and publishing	-2%	100	69%	23%	30	-1
3321	Forging and Stamping	Machinery and metal working	-2%	296	75%	13%	30	-1
3323	Architectural and Structural Metals Manufacturing		-1%	567	74%	11%	30	-2
3361	Motor Vehicle Manufacturing		-4%	0	13%	72%	30	-2
5622	Waste Treatment and Disposal		-33%	0	78%	20%	50	-2
3311	Iron and Steel Mills and Ferroalloy Manufacturing		-17%	32	77%	12%	30	-2
3362	Motor Vehicle Body and Trailer Manufacturing		-16%	0	56%	14%	30	-3
3112	Grain and Oilseed Milling		-16%	139	53%	17%	30	-4
4832	Inland Water Transportation		-8%	2	67%	32%	15	-4
3399	Other Miscellaneous Manufacturing	Computer and software	-4%	378	57%	14%	30	-4
3324	Boiler, Tank, and Shipping Container Manufacturing		-8%	0	76%	13%	30	-4
3328	Coating, Engraving, Heat Treating, and Allied Activities	Machinery and metal working	-6%	575	73%	11%	30	-5
4243	Apparel, Piece Goods, and Notions Merchant Wholesalers		-12%	311	51%	18%	20	-5

Continued

TABLE 9.1
INDUSTRIAL INDUSTRY "SCORE CARD"

NAICS Code	NAICS Description	Identified Cluster	Metro Area Proj. Growth Rate	2004 Est. Mpls. Empl.	% of Jobs Starting at a Living Wage	% of Jobs Req. 4-Year Deg.	Est. Empl. Per Acre	Change in Metro Acreage 02-'12
			"Opportunity Industrial Employment" (Continued)					
3121	Beverage Manufacturing		-10%	33	51%	13%	30	-6
4247	Petroleum and Petroleum Products Merchant Wholesalers		-24%	10	63%	14%	20	-6
2211	Electric Power Generation, Transmission and Distribution	Utilities	-6%	1,994	86%	28%	40	-7
3256	Soap, Cleaning Compound, and Toilet Preparation Manufacturing		-15%	313	55%	17%	30	-9
3327	Machine Shops; Turned Product; and Screw, Nut, and Bolt Manufacturing	Machinery and metal working	-4%	745	84%	11%	30	-9
3359	Other Electrical Equipment and Component Manufacturing	Machinery and metal working	-16%	31	51%	18%	30	-11
2373	Highway, Street, and Bridge Construction		-5%	1,678	93%	9%	30	-11
3272	Glass and Glass Product Manufacturing		-46%	59	54%	12%	30	-11
3363	Motor Vehicle Parts Manufacturing		-35%	19	57%	16%	30	-14
3332	Industrial Machinery Manufacturing	Machinery and metal working	-16%	206	76%	28%	30	-15
3231	Printing and Related Support Activities	Printing and publishing	-3%	3,000	64%	13%	30	-17
3222	Converted Paper Product Manufacturing	Machinery and metal working	-8%	773	67%	9%	30	-17
4911	Postal Service		-4%	4,702	93%	3%	15	-29
3329	Other Fabricated Metal Product Manufacturing	Machinery and metal working	-19%	214	70%	17%	30	-34
"Opportunity Industrial Employment" Total			**7%**	**382**	**68%**	**16%**	**28**	**11**

Continued

TABLE 9.1
INDUSTRIAL INDUSTRY "SCORE CARD"

NAICS Code	NAICS Description	Identified Cluster	Metro Area Proj. Growth Rate	2004 Est. Mpls. Empl.	% of Jobs Starting at a Living Wage	% of Jobs Req. 4-Year Deg.	Est. Empl. Per Acre	Change in Metro Acreage 02-'12
			"Run of the Mill Industrial Employment"					
4921	Couriers		39%	1,465	27%	13%	15	175
4931	Warehousing and Storage		33%	647	43%	11%	15	151
4859	Other Transit and Ground Passenger Transportation		63%	291	37%	10%	15	143
4244	Grocery and Related Product Wholesalers		8%	1,261	49%	10%	20	40
4851	Urban Transit Systems		42%	573	33%	9%	15	34
4231	Motor Vehicle and Motor Vehicle Parts and Supplies Merchant Wholesalers		12%	714	49%	14%	20	29
5121	Motion Picture and Video Industries	Advertising and telecomm.	25%	735	43%	31%	60	14
4853	Taxi and Limousine Service		29%	303	30%	7%	15	12
4245	Farm Product Raw Material Merchant Wholesalers		5%	287	47%	16%	20	5
3118	Bakeries and Tortilla Manufacturing		3%	564	25%	7%	30	4
3212	Veneer, Plywood, and Engineered Wood Product Manufacturing		24%	0	48%	9%	30	4
8123	Drycleaning and Laundry Services		3%	1,383	17%	6%	50	3
4855	Charter Bus Industry		7%	45	24%	8%	15	2
3379	Other Furniture Related Product Manufacturing	Machinery and metal working	4%	160	31%	10%	30	1
3131	Fiber, Yarn, and Thread Mills		1%	3	28%	8%	30	0
3117	Seafood Product Preparation and Packaging		-40%	0	46%	13%	30	0
3122	Tobacco Manufacturing		-10%	2	48%	13%	30	0
3151	Apparel Knitting Mills		0%	0	27%	8%	30	0

Continued

TABLE 9.1
INDUSTRIAL INDUSTRY "SCORE CARD"

NAICS Code	NAICS Description	Identified Cluster	Metro Area Proj. Growth Rate	2004 Est. Mpls. Empl.	% of Jobs Starting at a Living Wage	% of Jobs Req. 4-Year Deg.	Est. Empl. Per Acre	Change in Metro Acreage 02-'12
	"Run of the Mill Industrial Employment" (Continued)							
3162	Footwear Manufacturing		0%	0	15%	13%	30	0
3161	Leather and Hide Tanning and Finishing		-9%	0	24%	15%	30	0
3169	Other Leather and Allied Product Manufacturing		-35%	25	24%	15%	30	-1
3351	Electric Lighting Equipment Manufacturing		-17%	0	45%	20%	30	-1
3132	Fabric Mills		-23%	8	33%	9%	30	-1
4852	Interurban and Rural Bus Transportation		-17%	131	16%	29%	15	-1
3141	Textile Furnishings Mills		-39%	35	30%	8%	30	-2
3113	Sugar and Confectionery Product Manufacturing		-8%	7	35%	11%	30	-3
3152	Cut and Sew Apparel Manufacturing		-33%	56	24%	7%	30	-4
3115	Dairy Product Manufacturing		-6%	389	45%	11%	30	-4
4922	Local Messengers and Local Delivery		-7%	508	25%	10%	15	-4
3352	Household Appliance Manufacturing		-63%	2	40%	17%	30	-4
3133	Textile and Fabric Finishing and Fabric Coating Mills		-66%	16	41%	10%	30	-6
3159	Apparel Accessories and Other Apparel Manufacturing		-56%	69	23%	15%	30	-6
1114	Greenhouse, Nursery, and Floriculture Production		-15%	0	30%	30%	40	-8
3149	Other Textile Product Mills		-39%	70	31%	12%	30	-8
3119	Other Food Manufacturing		-17%	228	40%	12%	30	-10

Continued

TABLE 9.1
INDUSTRIAL INDUSTRY "SCORE CARD"

NAICS Code	NAICS Description	Identified Cluster	Metro Area Proj. Growth Rate	2004 Est. Mpls. Empl.	% of Jobs Starting at a Living Wage	% of Jobs Req. 4-Year Deg.	Est. Empl. Per Acre	Change in Metro Acreage 02-'12
	"Run of the Mill Industrial Employment" (Continued)							
4249	Miscellaneous Nondurable Goods Merchant Wholesalers		-6%	340	48%	15%	20	-11
3114	Fruit and Vegetable Preserving and Specialty Food Manufacturing		-42%	56	40%	11%	30	-24
"Run of the Mill Industrial Employment" Total			**-7%**	**280**	**34%**	**13%**	**27**	**14**
Total Industrial Employment			**0%**	**468**	**57%**	**24%**	**33**	**8**

Source: Maxfiled Research Inc.

These industries often require workers with specialized training in technical methods of production. 21st Century industrial jobs can often have spillover effects into other industries, as all industries require greater technological training for workers.

21st Century industries can be characterized by higher projected growth rates, although many of the 21st Century industries shown in Appendix A actually show negative growth rates, primarily due to contractions in the semiconductor and computer manufacturing industries. Higher employment growth rates can have positive economic benefits for the Minneapolis and regional economy as new workers are recruited from the area to develop new skills and new workers with higher skill levels are attracted to the area.

Examples of 21st Century industrial jobs include:

- Navigational, Measuring, Electro-medical, and Control Instruments Manufacturing
- Pharmaceutical and Medicine Manufacturing
- Scientific Research and Development Services
- Architectural, Engineering, and Related Services
- Communications Equipment Manufacturing
- Land Subdivision
- Wireless Telecommunications Carriers (except Satellite)
- Telecommunications Resellers
- Railroad Rolling Stock Manufacturing
- Manufacturing and Reproducing Magnetic and Optical Media
- Aerospace Product and Parts Manufacturing

Because of the University of Minnesota and its many hospitals and health care facilities, Minneapolis is in a unique position to attract 21st Century employers, and should dedicate resources to accommodating the specialized needs of these industries.

Opportunity Industrial Jobs

Opportunity industrial jobs are characterized by a smaller percentage of jobs requiring a four-year degree and a larger percentage of jobs starting at a living wage. Many of the jobs in these industries require two year or vocational technical degrees. Others require three-year apprenticeship programs in conjunction with class room training.

In general, Opportunity employers tend to have lower land density, especially in comparison to 21st Century employers.

Opportunity industrial jobs provide economic benefits because they can elevate the economic status of workers who may not have the opportunity to attend a four-year institution. These jobs often provide workers with entry level positions where they can continue to develop skills and move up economically. Opportunity employers interviewed for this study pointed out that they often provide excellent benefit packages along with higher wages.

Examples of Opportunity industrial jobs include:

- Building Equipment Contractors
- General Freight Trucking
- Foundation, Structure, and Building Exterior Contractors
- Building Finishing Contractors
- Medical Equipment and Supplies Manufacturing
- Electrical and Electronic Goods Merchant Wholesalers
- Other Wood Product Manufacturing
- Plastics Product Manufacturing
- Wholesale Electronic Markets and Agents and Brokers
- Nonresidential Building Construction
- Hardware, and Plumbing and Heating Equipment and Supplies Merchant Wholesalers
- Residential Building Construction
- Freight Transportation Arrangement
- Machinery, Equipment, and Supplies Merchant Wholesalers
- Other General Purpose Machinery Manufacturing
- Other Specialty Trade Contractors
- Specialized Freight Trucking
- Metalworking Machinery Manufacturing
- Lumber and Other Construction Materials Merchant Wholesalers
- Metal and Mineral (except Petroleum) Merchant Wholesalers
- Office Furniture (including Fixtures) Manufacturing
- Ventilation, Heating, Air-Conditioning, and Commercial Refrigeration Equipment Manufacturing
- Commercial and Service Industry Machinery Manufacturing
- School and Employee Bus Transportation
- Cement and Concrete Product Manufacturing

Run of the Mill Industrial Jobs

This grouping of industrial employers and industries offers lower percentages of jobs to workers with four-year or higher degrees but also has lower percentages of jobs starting at a living wage.

As with Opportunity industrial employers, Run of the Mill industrial employers have lower employment densities.

Run of the Mill employers provide needed employment opportunities for workers and valued goods and services to their customers. However, these employers do not offer the same level of economic benefits to the City, and, where industrial land is in short supply, should have less priority over industries that do provide higher benefit levels.

Examples of Run of the Mill industries include:

- Couriers
- Warehousing and Storage
- Grocery and Related Product Wholesalers

- Textile and Fabric Finishing and Fabric Coating Mills
- Apparel Accessories and Other Apparel Manufacturing
- Greenhouse, Nursery, and Floriculture Production
- Other Textile Product Mills
- Other Food Manufacturing
- Miscellaneous Nondurable Goods Merchant Wholesalers
- Fruit and Vegetable Preserving and Specialty Food Manufacturing

Primary Land-Use Recommendations: Three Options

We submit three options to address industrial land use in Minneapolis. Providing recommendations as options presents City policy makers with a range of responses. The options differ in relative strength, with the first option providing policy statements to guide land use, the second option outlining criteria for industrial land use decisions, and the third option limiting land use changes.

While three options are outlined, we recommend that City policymakers select Option #3. Option #3 protects industrial land use in areas where the market will support it, and gives policymakers direction when weighing re-zoning industrial properties in transitioning areas.

Option #1: Strengthen policy statement in Minneapolis Plan

Recommendation #1.1: Revise Minneapolis Plan to clarify that Industrial Business Park Opportunity Areas (IBPOA) are prioritized for industrial use.

The City should revise the Minneapolis Plan so IBPOAs are clearly designated for the retention, expansion, and attraction of existing and new industrial firms. As mentioned in Section 1.1, the Minneapolis Plan designates seven Industrial Business Park Opportunity Areas. The Plan, however, does not express a firm policy commitment to industrial jobs or land use in the IBPOAs.

Recommendation #1.2: Specify that all rezoning decisions need to consider employment impacts.

To coincide with Recommendation #1.1, the Minneapolis Plan should have additional language that states all rezoning decisions affecting industrial-zoned land should consider impacts on:

- Living-wage jobs
- Jobs available to workers with less than a four-year degree
- Employment density.

Option #2: Clearly define Employment Districts; outline city-wide guidelines for rezoning industrial land

Recommendation #2.1**:** Clearly define boundaries of Industrial Business Park Opportunity Areas in the Minneapolis Plan.

Because IBPOAs are designated as "points" rather than "districts," their boundaries are unclear. They lose significance in land use and zoning decisions without boundaries.

As such, we recommend the City adopt Employment Districts to provide geographic boundaries to IBPOAs. Specific geographic boundaries will clarify that industrial is the priority land use and uses that impede industrial businesses should not be permitted.

See Appendix B for a map of each Employment District. Boundaries were identified through the following criteria:

- Contiguous and Significant Area
- Marketable Sites
  - Access
  - Proximity to Recent Market Investment
  - Proximity to/Buffering from Residential Uses
- Small Area Plan
  - Envisioned Land Use

The proposed boundaries designate 2,193 acres for continued industrial use, which represents 55% of industrial-zoned acreage and 70% of industrial-used land in 2004.

Recommendation #2.2**:** Adopt city-wide criteria to consider when evaluating rezoning amendments related to industrial land.

In Section 525.280 of the Minneapolis Zoning Code, the planning commission is required to make findings on five issues, including comprehensive plan compliance, whether the amendment would be in the public interest, compatibility with adjacent uses, whether the existing use is reasonable, and any transitions that have occurred in the character of the general area.

In addition to these considerations, the following criteria need to be addressed when considering rezoning amendments for industrial areas:

- *Job Impacts.* Consider number of living-wage jobs lost, existing and future job opportunities for residents with less than a four-year degree, and job density at the site.
- *Tax base impacts.* Evaluate tax base impacts relative to job impacts.
- *Viability.* Prioritize developments with immediate users over potential uses without users lined up.
- *Transition.* Consider the cost of transitioning a property from one use to another through zoning. Properties made non-conforming may suffer years of deferred maintenance until

a viable user surfaces. Public resources may also not be available to change a property's use.

- *Adjacency to viable industrial areas.* Consider negative impacts of residential users on adjacent and viable industrial sites, such as land price uncertainty and conflict with residents.

Option #3: Adopt Employment Districts; prohibit rezoning amendments for residential uses in Employment Districts.

Recommendation #3.1: Clearly define boundaries of Industrial Business Park Opportunity Areas by adopting Employment Districts into the Minneapolis Plan. See Recommendation #2.1.

Recommendation #3.2: Prohibit residential uses and Industrial Living Overlay Districts (ILODs) in Employment Districts.

Residential uses and ILODs clearly have a disturbing effect on the stability of industrial areas. First, ILODs introduce conflicting uses and friction between businesses and new residents. Second, industrial land prices and lease rates rise. Third, uncertainty among land owners also often brings deferred investment and possible relocation.

Industrial sites in Employment Districts are different than in industrial conversion sites in Downtown Minneapolis. Industrial buildings in Downtown are often older, functionally obsolete, and attractive because of premium architectural features. Industrial sites in an Employment District are less likely to be obsolete, and have attributes –like close access to highways- that make industrial the long-term highest and best use.

In order to prevent disruptive residential developments where long-term market demand is expected for industrial use, ILODs should be granted only outside of the Employment Districts.

Two routes exist for prohibiting ILODs in Employment Districts. The City could revise the Minneapolis Plan. Updated language would state ILODs, and other zoning districts that permit residential uses, are prohibited in Employment Districts. In Section 525.280 of the Zoning Code, the city planning commission must find a zoning amendment is "consistent with the applicable policies of the comprehensive plan" to approve it. The other route is to revise the Zoning Code in the City Ordinances to prohibit application of new ILODs in Employment Districts.

Three important distinctions to consider:

1) Employment Districts are designed to protect prime industrial space with strong long-term market fundamentals. Industrial businesses can continue to operate outside of the Employment Districts, but without added protection from residential conversions.

2) Employment Districts present an opportunity for the City to support targeted industrial users, such as *21st Century* and *Opportunity* industrial employers, and redevelop underutilized sites.

3) The restrictions would apply only to future residential zoning amendments and not existing residential uses in Employment Districts.

Recommendation #3.3: Adopt guidelines to consider when evaluating rezoning amendments in areas outside of the Employment Districts.

This recommendation applies #2.2 outside of the Employment Districts.

Figure 5.1.1 in the Summary Document shows how the three options compare to actions undertaken by six other cities that completed an industrial land use study. All six cities designate specific areas for industrial use with geographic boundaries. Most restrict or ban re-zoning from industrial to other uses in these designated areas. Three of the six cites go further and ban existing and future non-industrial uses in the designated areas.

In juxtaposition to the other six cities, Minneapolis currently sits on the beginning of the continuum of actions. Minneapolis currently designates areas with a policy statement expressing the importance of industrial jobs (IBPOAs). Option one reiterates the importance of these areas, but not much more. Option 2 provides geographic boundaries and city-wide re-zoning criteria. Option 3 moves the city further in addressing the problem by applying re-zoning criteria outside of the Employment Districts and banning residential re-zonings in Employment Districts.

A full discussion of actions undertaken by other cities can be found in Appendix C.

General Land-Use Recommendations

Recommendation #4**:** Allow more conditional uses in ILODs.

ILODs have become a specialized zoning tool to transition areas from industrial to residential uses. Initially created to protect historic structures and promote the creation of affordable housing, ILODs now give developers and the city a way to zone a parcel for residential use while maintaining the primary industrial zoning. These districts may become entirely residential and need to be rezoned as such.

One issue that surfaced is that some commercial uses are limited under the ILOD designation. The City should allow a wider range of conditional commercial uses in ILODs, when applied in transitioning areas.

Recommendation #5: Incorporate industrial uses into small area plans for locations adjacent to Employment Districts.

In community meetings, residents frequently said they are very interested in having job opportunities available for residents and most are satisfied with their relationship to industrial businesses. Likewise, many employers are very interested in developing ongoing, mutually beneficial relationships with neighborhoods and community groups. The small area planning process presents an excellent opportunity for the City to foster this relationship.

To that end, the City should encourage communities participating in small area plans to partner with business associations and seek input from neighborhood employers. While several plans submitted sought input and participation from the business community, there is room for improvement.

Recommendation #6: Within the Employment Districts, make churches a conditional use as opposed to a permitted use. Exclude all primary, secondary and post-secondary schools in the employment districts except those where the curriculum is targeted to preparing students for careers associated with business and industry.

Currently, churches are a permitted use in the I-1 and I-2 zoning districts. The Religious Land Use and Institutionalized Persons Act (S.2869-June 2, 2005) states that no government shall impose a land use policy that totally excludes religious assemblies from a jurisdiction or unreasonably limits religious assemblies, institutions or structures from within a jurisdiction. As such, Minneapolis cannot exclude churches from the employment districts. We believe however, that identifying specific industrial employment districts through employment boundaries may steer churches toward other areas nearer residential neighborhoods and more conducive to attracting their constituencies.

Excluding all primary, secondary and post-secondary schools in the employment districts except those where the curriculum is targeted to preparing students for careers associated with business and industry. This recommendation is intended to reduce potential conflicts between school children and industrial operations. Schools that focus on training and future employment in business and industry would prepare future workers to fill industrial positions. Currently, schools are permitted uses in I-1 and I-2 zoning districts and locate in these areas primarily because of low lease rates and low density building structures. This situation limits the ability to redevelop these sites and/or preserve them for industrial use.

Recommendation #7: Encourage and implement buffering through site plan review process.

For new structures within the employment districts and new structures in transition areas, we recommend that appropriate buffering be implemented to reduce conflicts between existing industrial uses and sites that may have a land use different from an industrial use.

For example, in a number of transition areas, former historic warehouse buildings are being converted to residential dwellings. In some cases, industrial sites are redeveloped with new construction. New users to the area should bear the burden of applying buffering to mitigate potential conflicts with existing industrial or commercial users that are already in the area.

Typically, conflicts most often arise between residential uses and industrial uses in close proximity to one another. As the residential use is moving into a traditionally industrial area, it seems appropriate through site plan review and approvals to require an appropriate amount of buffering.

Economic Development Recommendations

Recommendation #8: Set aside at least half of the available industrial business assistance for targeted industrial employers.

CPED staff report that industrial business assistance is typically provided on a first-come-first-serve basis. While assistance can be provided quickly, it does not guarantee capital goes to businesses that provide the greatest return to Minneapolis.

We recommend setting aside at least half of the available industrial business assistance for *21st Century* and *Opportunity* industrial employers. While there are tradeoffs between these both groups, supporting *21st Century* and *Opportunity* employers raises the possibility of greater economic benefits for Minneapolis -higher wages, better job opportunities for residents without a four-year degree, and high-growth potential.

Targeting specific industrial users would emulate the Life Sciences Corridor initiative. The current initiative provides city assistance and state bioscience tax credits to life science firms in order to further grow the medical institutions and business in the corridor.

Some of the medicine-oriented *21st Century* industrial users may also be eligible for the bioscience sub-zone tax credit by locating in the SEMI Employment District.

The City should actively market the targeted industrial business assistance through one-on-one meetings with business owners and managers, outreach to industry organizations, and continued contact through business associations.

Recommendation #9: Align workforce investments with targeted industrial employers.

There is a role for the City in workforce development. The City should encourage the skill attainment and hiring of Minneapolis residents, which ultimately benefits both employer and employee. Health Careers Institute is an example of a City-funded job training program that benefits both job seekers and the employer.

We submit three recommendations:

1) CPED staff should maintain and continue to develop strong relationships with the Minneapolis Workforce Investment Board, the Minnesota Department of Employment and Economic Development, the Minnesota State Colleges and Universities, the University of Minnesota, and the Minneapolis School District.

2) Workforce development programs should be customized and targeted to *21st Century* and *Opportunity* industrial employers.

3) Encourage on-site job training among workforce development programs. Employer interviews reveal that a number of employers believe the best form of job training is on-site. In fact, CPED may be in a unique position to identify where onsite job training may

be most needed and where resources could best be applied to benefit Minneapolis residents.

Recommendation #10: Increase resident employment at existing and new industrial businesses through workforce development.

Helping employers find and hire skilled Minneapolis workers is a more constructive approach to increasing resident employment than mandated hiring requirements. The City already works to place Minneapolis residents with Minneapolis employers through the living wage ordinance and job linkage agreements. Instead of a strategy to force employers to hire Minneapolis residents, we recommend the City pursue resident hiring though the workforce development strategies outlined above.

Recommendation #11: Institute biannual survey of industrial businesses.

We believe that conducting a reoccurring survey would accomplish two goals: provide an opportunity to collect data on industrial wages, education levels, resident employment, business needs, and satisfaction with City services; and provide an opportunity for outreach to businesses.

Recommendation #12: Improve outreach to business community.

In addition to the survey, we also recommend using face-to-face meetings with business owners and managers, ongoing outreach to industry organizations, and continued contact with area business associations. An instructive example is the proactive business visitation program coordinated by ComEd, World Business Chicago, and the City of Chicago (see Appendix C, page 99).

Recommendation #13: Continue efforts to streamline the development process.

Minneapolis has made great strides in streamlining its development and redevelopment process through the Minneapolis One Stop, but still has room for improvement. Through community meetings and individual interviews, business owners and developers expressed frustration in dealing with development and property issues through the City. Many also expressed optimism about Minneapolis One Stop, and felt that it represented a good effort that would result in streamlined services. We believe the Minneapolis One Stop program will be critical for industrial redevelopment in the City and recommend that CPED continue to be an effective and collaborative partner in these efforts.

Recommendation #14: Coordinate infrastructure investments with needs of targeted industrial employers.

In general, there appears to be little coordination between Public Works and CPED on industrial development and redevelopment issues. Improvement in this area represents an opportunity for the City to show industrial developers and businesses its commitment to developing a competitive and supportive business environment.

Two actions could catalyze industrial redevelopment. First, the City should develop a mechanism where CPED industrial development priorities are submitted to Public Works for incorporation into their project work plan. Second, CPED should ask about the infrastructure needs of industrial businesses when conducting business outreach (see Rec. #8) and coordinate remedies with Public Works.

Recommendation #15: Pursue industrial redevelopment through public-private partnerships.

Two strategies for industrial redevelopment are available to the City. The first strategy is traditional site acquisition and assembly, in which the City purchases and eventually turns over land as part of a redevelopment project. The North Washington Jobs Park has recognizable products of this strategy. St. Paul Port Authority developments provide other examples.

However, a number of constraints currently affect the City's traditional acquisition and assembly program.

- Little money is available. According to CPED staff, the MILES program is the only resource for traditional acquisition and only $1.8 million remains available.
- Industrial land prices are high. At high land prices the City's limited resources won't buy much land. High land prices drive up the eventual City subsidy per job.
- The state political climate is hostile to using eminent domain for redevelopment, which reduces the City's negotiating position in a land sale.

In order to overcome these constraints to industrial redevelopment, we recommend a second strategy: partner with industrial business owners and developers.

We recommend proactively reaching out to growing targeted industrial businesses and developers and guiding these businesses to potential redevelopment sites. Once a site is selected, the City should help redevelop an underutilized parcel through business assistance funds. In addition, the City should reach out to Hennepin County and the State of Minnesota for assistance in recycling polluted land.

A number of advantages exist to partnering with business owners. For example, unlike the traditional site assembly strategy, other financing becomes available, such as pay-as-you-go tax increment financing, low-interest loans, and industrial revenue bonds. The City also does not pay the carrying cost and carry the risk during the intermittent years. The business operator or developer might also negotiate with landowners more effectively.

Redevelopment also presents an opportunity to clean-up environmentally contaminated and polluted sites. Hennepin County and the State of Minnesota will be important partners in recycling polluted land. In turn, the City should work to insure any targeted industrial business receiving financial assistance does not environmentally damage a site.

Finally, redevelopment presents a chance to introduce emerging industrial development concepts. The market feasibility of mixed-use and vertical industrial space is relatively undeter-

mined in the current marketplace. However, these development concepts may help industrial and residential uses cohabitate and could be explored.

Measuring Outcomes

Stated as a goal of this analysis, the recommendations seek to outline a policy and land use framework for supporting high quality industrial jobs. Throughout the analysis, quality industrial jobs have been defined as those that pay a living wage, provide employment opportunities to workers without a 4-year degree, and are at facilities that have low impacts and high employment density.

Using these goals, we outline four outcome measures for tracking the success of this policy and land use plan. All of the measures would be determined through data collected in the survey outlined in Recommendation #9. We recommend using the first survey to establish baseline data for these questions.

1) An increase in the percentage of living wage jobs;
2) An increase in the number of *21st Century* and *Opportunity* industrial jobs;
3) An increase in the number of Minneapolis residents employed at industrial businesses;
4) Scores of "satisfied" or "very satisfied" on questions about the quality of specific City services.

In addition, the City can use the Minnesota Pollution Control Agency data presented in this report (page 23) as a baseline to measure:

5) A decrease in the number of polluted sites on industrial land.

We believe these are the critical questions to use to determine whether or not the City has accomplished its goals through this policy and land use plan.

Introduction

This appendix describes methodologies for estimating data used in this report. Most of the methodological descriptions are contained within the technical report. The following are additional notes.

Population and Household

The data come from the U.S. Census Bureau, the Metropolitan Council, the Minnesota Department of Administration, and the Minnesota Department of Employment and Economic Development. Population and household projections have published by the Metropolitan Council and the Minnesota Department of Administration.

Resident Labor Force

The data is from the Local Area Unemployment Statistics program at the Minnesota Department of Employment and Economic Development. Maxfield Research Inc. adjusted data prior to 2000 to make it consistent with estimates after 2000.

Resident Education Levels and Resident Occupations

The data is from the U.S. Census.

Employment in the City of Minneapolis

Maxfield Research Inc. used two data sources to estimate employment by industry in the City of Minneapolis. The first data source is based on employment reported to the Minnesota Department of Employment and Economic Development (DEED) by employers as a part of the state's unemployment insurance (UI) program. In order to determine experience rating and appropriate UI tax, the state requires employment records for each establishment. DEED uses this data to report employment and number of establishments by industry in certain geographic locations – data which is referred to as the Quarterly Census of Employment and Wages (QCEW) or often as Covered Employment. Covered employment data is calculated as an annual average and shows the number of jobs which are covered by unemployment insurance. Most farm jobs, self-employed persons, and some other types of jobs are not covered by unemployment insurance and, therefore, are not included in the covered employment data provided by the Minnesota Department Employment and Economic Development.

Because the QCEW data come from individual employers, DEED does not disclose data that would reveal proprietary employment information for individual employers and uses a system to ensure that this data is protected. This system also suppresses employment in industries that could be disclosed without violating the protections for individual employers. In this study,

where the covered employment data is available for the City of Minneapolis, that data is used. For industries where this data cannot be disclosed, Maxfield Research Inc. uses the second data source, the County Business Pattern data to estimate missing data.

The County Business Pattern (CBP) data is collected and published by the U.S. Census Bureau. The data comes from the Census' Business Register, a database of single- and multi-establishment employers put together from a variety of federal regulatory sources. This data is updated every four years through the Economic Census and annually through the Company Organization Survey, although not every record is updated each year. The CBP data does not include self-employed persons, railroad employers, and government employers. The CBP data is presented as ranges, with counts of the number of establishments within a range of employee counts. For this reason, Maxfield Research Inc. estimated employment by assigning each establishment within the range the midpoint employment value.

Maxfield Research Inc. estimated missing data from the QCEW data by applying the ratio of estimated employment in the CBP data for those missing industries to the total missing value in the QCEW data. For example, an industry is published at the five-digit level but not at six-digit level. Maxfield Research used the estimated employment in the CBP data to derive a distribution of employment over those six-digit industries and distributed the total employment at the five-digit industry across the six-digit industries based on that distribution.

In addition, because of a classification change, direct comparisons between data prior to 2000 and data after 2000 are difficult. Table 1.5 presents Unemployment-Insurance covered employment in the City of Minneapolis for 1990, 1995, and 2000 (Table 1.5 data is based on the SIC-Standard Industrial Classification System). Table 1.6 presents annual averages of covered employment for the same region from 2000 through 2004 (Table 7 data is based on the new NAICS-North American Industrial Classification System).

The change in data from Table 1.5 to Table 1.6 is due to a reclassification of employment data from the SIC (Standard Industrial Classification) system to the new NAICS (North American Indus-trial Classification System). As a result, the data from the SIC is not directly comparable to the new NAICS. The NAICS has 1,170 industry categories, up from the 1,004 that the SIC contained. One-third of the SIC industries were revised and another one-third of the NAICS industries were created new. We have chosen to use both systems in order to show a history of employment growth over the past decade and also the current growth over the past two years.

The number of employees presented in these tables represents both full- and part-time employees. No adjustment is made to calculate the number of full-time-equivalent employees. Seasonal employees are not included if they do not work during the reporting period. For example if an employee works part-time for only one month of the three-month reporting period, that employee counts as 0.33 employees. If that person works part-time for one-third of the time over all three months in the period, that employee counts as 1.0 employee.

Data for establishments is estimated through the same methodology as for employment.

Industrial Employment in the City of Minneapolis

The industrial zoning assignments are based on the City's zoning code, which outlines appropriate uses for assigned zoning, and on input from City staff familiar with how the zoning code is implemented.

The zoning assignments represent the minimum intensity for use. For example, industrial uses appropriate for areas zoned light industrial are also appropriate for areas zoned medium and heavy industrial. These industries have been categorized as I-1. Industrial uses appropriate for areas zoned for medium industrial (I-2) can also be located in areas zoned heavy industrial. Industries zoned heavy industrial (I-3) are only appropriate for areas zoned heavy industrial.

Maxfield Research Inc. made no distinction between permitted and conditional uses. If either the industry is appropriate for a particular zoning type, whether permitted or conditional, it is assigned to that type. At this stage of the analysis, Maxfield Research Inc. did not consider non-industrial uses that are permitted within these zoning classifications (e.g. restaurants, car washes, community organizations, etc.)

Estimating Industrial Employment within Areas of Analysis

When employment data is presented for the areas of analysis, it is based on data from InfoUSA. InfoUSA is a national directory company and tracks business information, including address, industry, and estimated number of employees. Because this data is geographically based, it was used for the areas of analysis, over the UI-based estimates. While we believe this data to be reliable, it has not been independently verified. InfoUSA data was also used to generate lists of potential employer survey respondents.

Differences between the UI-Based Employment Estimates and InfoUSA-Based Employment Estimates

Employment estimates for the City differ from the estimates for the Areas of Analysis. Neither data source has been adjusted to the other source because there are pros and cons of each source. The UI-based estimates are good because they can be compared across time. The InfoUSA estates are good because the data is more precise geographically. For several reasons, it was decided that both sets of data should be presented even though they are not 100% consistent. The following list contains some of the reasons for the differences.

1. Independent contractors. Some employers may have large portions of their workforce classified as independent contractors. We believe this is especially true in certain industries such as construction. Independent contractors are not covered under unemployment insurance and would not show up in the Covered Employment data but would most likely be captured in the InfoUSA employment estimates. Other employers may classify certain employees incorrectly as independent contractors. Likewise, these employees would not

be included in the Covered Employment data but would be included in InfoUSA's estimates.

2. Businesses with an owner and no employees. Unemployment Insurance is not required for businesses with no employees. These businesses with one employee would not be included in the Covered Employment data but would be included in InfoUSA's data.

3. Estimation methodology by Maxfield Research Inc. Mentioned previously, Maxfield Research Inc. uses Unemployment Insurance (UI) administrative data to estimate employment. Certain employees are not covered by UI. UI is not required for Federal employees, commission-only real estate and sales persons, ministers and employees of some religious organizations, some domestic employees paid less than $1,000 per quarter, students employed at educational institutions, and some agricultural farm laborers. None of these employees would be included in the Covered Employment data.

4. UI fraud/incentives to under-report employees. Some employers may not report all employees, in order to lower unemployment insurance premiums and other required employment insurance such as Workers' Compensation. We do not believe such fraud is pervasive, but we do believe the possibility exists and may account for differences in the data.

5. Employees reported at incorrect establishment. Employers may report all of its establishments' employment at one establishment's location. For example, a large state-wide employer with its headquarters in Maplewood may report all of its employment at that location, even though it might have a significant employment presence in Minneapolis. Likewise, a large employer with its headquarters in Minneapolis may report all of its employment at that location, even though the company has sites all around the state. The Department of Employment and Economic Development recognizes this issue and has attempted to correct this problem with the limited resources it has available to do so; however, some error still remains.

Estimating Number of Jobs with Starting Living-Wage Salaries and Education Levels

Jobs starting at a living wage, for purposes of this analysis, are defined as occupations where the 10^{th} percentile Metro Area wage is above the 2004 living wage rate of $9.97 per hour. While not very accurate, the 10^{th} percentile is considered the starting rate. (This is an obvious oversimplification, as a person could be paid at the 10^{th} percentile rate and have years of experience. Vice versa, many people might start at a higher rate.)

These occupations are matched to industries based on an industry-occupation matrix published by the U.S. Bureau of Labor Statistics. This matrix provides estimates based on surveys of the occupation mix within industries. Based on this matrix, the total percentage of occupations that start at a living wage is determined for each industry.

One key limitation to this analysis is that the industry-occupation matrix is based on national surveys and may not reflect the local occupation mix within industries. The fact that Minneapolis has a highly educated workforce suggests that these percentages most likely under estimate the true number of employees in occupations that start at a living wage. Likewise, the fact that Metro Area wages are used also distorts the estimates. Shown in table 1.27, the average weekly wage is higher for Minneapolis than the Metro Area as a whole. Again, this suggests that these estimates may under-estimate the percentage of living wage occupations within industries.

The estimated percentage of jobs starting at a living wage was applied to employment estimates to determine the living wage jobs within industries and within areas of analysis.

Estimates of educational requirements are made through data published by the U.S. Bureau of Labor Statistics that assigns a minimum educational requirement to each occupation. Using the aforementioned industry-occupation matrix, the percentage of jobs requiring a high school diploma or on-the-job training, along with the percentage of jobs requiring a technical or vocational school degree was estimated.

Questions and Responses from the First City Council Study Session (January 20, 2006)

Land Use Portion of Presentation

Council Member Gordon: How much industrially-zoned land is being used for educational facilities?

- The Minneapolis School District uses approximately eight acres of industrially zoned land. The University of Minnesota owns about 84 acres of industrially zoned land. These two owners combine for about 2.3% of industrial zoned land in Minneapolis.

  Based on data from the Minnesota Charter Schools association, we identified seven schools (of 27 charter schools total) located in industrially zoned areas. These schools include Aurora Charter School (2520 Minnehaha Avenue; 224 students), Lighthouse Academy of Nations (2600 26th Avenue South; 84 students), Minnesota International Middle School (277 12th Avenue North; 240 students), New Millennium Academy (1203 Bryant Avenue North; 193 students), Twin Cities International Elementary School (277 12th Avenue North; 485 students), MTS Arts High School (2526 25th Avenue South; students unknown), and Ubah Medical Academy (277 12th Avenue North; 172 students).

  In addition to these schools, Dunwoody Institute's 14-acre parcel and Newgate Educational Research's two-acre parcel are located in industrially zoned areas. Assuming each charter school accounts for about an acre of land, the total industrially zoned land used for educational purposes would be about 115 acres, or just less than 3% of all industrially zoned land.

Council Member Hofstede: What ways are we incorporating other modes of transportation into the plan besides trucking? Pressed for using the river as a better mode for industrial; preservation of rail mode for industrial.

- See the Freight section starting on Page 113 for a detailed discussion of freight trends in Minneapolis and the Metro Area.

Council Member Goodman: How much industrial land is government owned? What is the effect of this on the tax base in terms of what is the potential tax revenue lost? Include this in the final report.

- Shown in Table 2.7.1 of the Summary Document, 273 of Minneapolis' 3,984 industrial acres is publicly owned, about 7%. Of that, 127 acres (3.2% of the total) is owned by the City of Minneapolis.

  Using the median market value and tax revenue per square foot shown in Table 1.3.3 of the Summary Document, if the 127 acres were converted to tax paying industrial property, it would have added about $116 million to the tax base. This change would have increased the tax base by about 0.33%. The conversion to property tax paying status would have shifted about $3 million in revenue from all other properties (based on tax year 2004 estimates).

Economic Portion of Presentation

Council Member Goodman: Provide an analysis of the jobs/acre of current industrial land as well as what it would be given industrial trends.

- Jobs per acre analysis is shown in Table 2.1. It is difficult to estimate how these figures will change given current industrial trends.

Council Member Schiff: How did the city compare to other cities and nationwide with regards to the 2000-2004 recession? Provide a comparison in the final report.

- While we recognize the importance of a cross city analysis, obtaining data for other comparable cities in the upper Midwest has been very difficult.

Council Member Lilligren: Are fuel costs also factored into employment projections? Are U.S. businesses reaping the benefit of expanding into other manufacturing areas as opposed to foreign-produced goods that are produced cheaply but become more expensive due to higher shipping charges?

- The employment projections used are based on estimates from the U.S. Bureau of Labor Statistics and the Minnesota Department of Employment and Economic Development. Both agencies use national data to project future trends. These models, because they include data from the last five years, will take some of the trends related to fuel costs into consideration. However, they would not take into consideration economic "shocks" that could come as a result of a dramatic change in fuel costs. Because these events cannot be accurately predicted, they are not included in national and statewide estimates and, as a result, not included in our estimates.

Council Member Lilligren: Expanded on Council Member Goodman's request regarding jobs/acre to include a comparison as to the pay/job.

- Attempts to match the employment per acre data along with the percentage of living wage jobs per industry are shown in the "Industry Scorecard" Appendix in the summary document.

Council Member Lilligren: Revise the employment analysis on living wage to include a breakdown of wages plus benefits per the definition of a "Living Wage Job" in city ordinance.

- We understand the importance of including benefits provided in this analysis, especially given the recent change in the Minneapolis Living Wage Ordinance. However, because there are not good data sources that survey benefits along with wages, we cannot make those adjustments in our estimates of living wage. As a result, we have maintained the existing analysis, which is based on 2004 wages and the 2004 Living Wage Ordinance. We believe the conclusions derived from this analysis will be somewhat conservative in their assessment of job quality because of this fact.

Council Member Remington: Revise the employment analysis to give a breakdown as to whether jobs that pay a living wage are union or non-union.

- Because the estimation process used does not include union participation, we cannot add this component to the analysis. Given high union rate participation in the industrial industries and Minnesota as a whole (shown in union participation analyses done by the U.S Bureau of Labor Statistics), we are confident that many of the workers employed in industrial businesses in Minneapolis are union members or are represented by a union.

Council Member Remington: Revise the employment analysis to give a breakdown as to whether jobs that pay a living wage are full-time or part-time.

- We recognize the importance of this question. If a job pays a living wage but only for part-time workers, the person earning the wage may not actually earn a living wage. However, the data is only based on number of jobs, not broken down by full-time or part-time status.

Council Member Hofstede: How much are heavy industries contributing to the tax base versus light industries?

- Because there is more of it, lighter industrial properties contribute more to the tax base than heavy. It is difficult to compare on a square foot basis because much of the heavy industrial uses are older than the new lighter uses, and much of the valuation difference may be solely attributable to age and condition of buildings on the properties.

Council Member Glidden: How are you utilizing population growth in changeover in land use? Benefits of a diversified economy need to be spelled out in the final report.

- The final report includes updated population figures, not the Metropolitan Council's projections. We have provided some information on the economic benefits of a diversified economy in the Summary Document.

Neighborhood Stakeholder Portion of Presentation

Council Member Goodman: Elliot Park, Downtown West and North Loop need to be added to the neighborhood meetings.

- In response to this comment, members of the study team met with community groups in Elliot Park, Bryn Mawr, Harrison, and Downtown. A meeting has also been scheduled with the North Loop neighborhood.

Council Member Hofstede: Will the study be addressing legislative changes regarding eminent domain and how those changes will affect Minneapolis?

- The study comments on the eminent domain issue but does not address it directly. Because the issue has not been resolved at the Minnesota Legislature, we do not analyze this policy.

We can say that, according to just about everyone we have spoken with, the political popularity of this tool is at a low point and will severely limit its use in the near future.

Council Member Colvin Roy: Include a complete comparative analysis for all cities and include the level of success each has had with their respective strategies.

- Efforts to obtain employment figures for comparable cities throughout the country, both with and without industrial land use plans, were unsuccessful. While we found Metropolitan Statistical Area data for most cities, this data was not broken down by city. For example, we could get data for the Milwaukee Metropolitan Area, but that data included all suburban employment in the county surrounding Milwaukee. In addition, the employment data has the same disclosure issues that the Minneapolis data has, so we would have to estimate missing values using Census Business Pattern Data, a process that is very time consuming. Because of these two issues, we did not do this analysis.

  We were very interested in tracking the performance of industrial land use plans in cities we analyzed – Boston, New York, Chicago, San Francisco, Portland, etc. However, city staff told us that either the plans were enacted too recently to have performance data or the city did not collect such data.

Council Member Colvin Roy: Include employment figures from 2000 for these comparative cities included in the final report.

- Mentioned previously, our efforts to obtain reliable employment figures for comparable cities, both with and without industrial land use policies, has proven difficult. We agree that this data would be an excellent measure of how well these cities are doing, but it has been difficult to obtain this information. In addition, most of the cities we contacted with industrial land use plans have not done a good job in setting up measures for success and tracking these measures.

Council Member Gordon: Include information on other cities that have pursued bioscience businesses and their degree of success.

- We did not find a good inventory of city initiatives for bioscience economic development. We did, however, find an inventory of state initiatives published by the Battelle Memorial Institute (http://www.bio.org/local/battelle2006/battelle2006.pdf). While this analysis does a good job of describing the various initiatives, the study does not evaluate the effectiveness of the initiatives.

  Of the 50 states and Puerto Rico, 44 states have initiatives designed to attract bioscience industries. These initiatives range from building bioscience research and development capacity, encouraging academic and industry interaction, moving technology into the market place, making capital available, providing space for bioscience companies, and addressing talent needs. Funding for these initiatives totals into the billions of dollars.

The study found a total of 1.2 million employees nationally in bioscience industries, with an additional 5.8 million jobs created indirectly as a result of bioscience employers.

The study identifies the need for seed money and facilities financing as the greatest challenge. It also notes that cities and regions have focused on leveraging existing educational and medical institutions. Other states have moved past some of the traditional economic development practices to focus on quality bioscience education and workforce development.

Council Member Samuels: Are their other industry trends that are emerging? Include an industry rating system included in the final report.

- The "Industry Scorecard" included in the report is an attempt to get at this issue.

Council Member Schiff: What is the statewide business community feeling towards the 2001 tax rate changes? Do they see that it has caused a disincentive for business?

- Much of the 2001 property tax reform was driven by the business community. Business leaders wanted to see a reduction in the effective property tax rates for commercial and industrial property. Our impression is that the business community is still supportive of these changes.

  We did hear from some business people and commercial brokers that the tax changes have created a disincentive for cities to have commercial industrial properties because they do not receive the tax benefits that they received prior to the change. In other words, residential uses have become more attractive relative to commercial industrial properties because the benefit obtained from commercial industrial properties has been reduced.

  While some business people and commercial brokers suggested that this may be the case, we did not hear this view from many people we talked to. As this belief requires a solid understanding of how the state property tax system works, most people we talked to were more concerned about the high level of property taxes in general, and less concerned about how subtleties of the property tax system may affect rezoning decisions at the city level.

Summary of Neighborhood Facilitation Process

Memorandum

April 21, 2006

To: Mary Bujold
From: Steve Quam, QSA, Inc.
Regarding: Neighborhood meetings – publicity and facilitation

Neighborhood meeting strategy development and approval

On May 26, 2005, the Industrial Land Use consulting team met with City Staff for a kick-off meeting. Mary Bujold outlined the plan for neighborhood input meetings. It was suggested that two neighborhood meetings be conducted in each of four larger industrial areas rather than three meetings in each of three areas. City staff provided a contact list for neighborhood organizations, suggesting them as the network for publicizing neighborhood input meetings.

On June 29, 2005, the first Steering Committee meeting was held. At that meeting, the plan for holding the neighborhood meetings was explained by Mary Bujold.

Introduction to Neighborhood Contacts

Maxfield Research identified the neighborhoods that bounded the industrial land use analysis areas, which totaled 26 neighborhoods. These neighborhoods were designated to be contacted for their respective areas regarding the industrial land use plan. During July of 2006, using contact information provided by the City, Steve Quam initiated telephone calls to each of these organizations for the purpose of a) describing the study, b) describing the likely content of the meetings, c) confirming contact person information, d) identifying the means the organizations had available for publicizing the meetings, and e) identifying good times, dates and locations to conduct the meetings, together with potential conflicts. A copy of the template interview sheet used for these calls is attached as Exhibit A.

After an initial round of telephone calls, including return call follow ups, Steve Quam had conversations, typically 20 minutes long with representatives of 19 of the 26 organizations. A set of spreadsheets, recording information gathered from these conversations is attached as Exhibit B. A 20th organization, the Hawthorne Area Community Council staff person requested an email explanation of what would be discussed, a copy of which is attached as part of QSA's email contact records (Exhibit C). Despite several follow-ups, Steve Quam was unable to have a telephone conversation with this staff person. Of the remaining organizations, three to five attempts were made to follow up with each, but no return calls were received. In lieu of telephone conversations, these organizations were then informed of the study by use of the email addresses provided by the City. See again, Exhibit C.

First Neighborhood Meetings

Notice to groups was given as follows:

Area 1 – Email notice was sent on 8/15 for a meeting on September 8. This was sent in time to include the meeting notice in the newsletters of the three organizations that had newsletters. We requested that they do this, and publicize the meeting by whatever other means they had available. Immediately, I was informed that Lind Bohanan had a conflicting meeting for that date (despite contrary information provided by city staff and to me by neighborhood staff during initial telephone interviews). That same day, 8/15, the meeting was rescheduled for September 12 and email (and to some, telephone information) was provided to the neighborhood organizations, again requesting inclusion of the changed date in their newsletters. On 8/22, I was informed by staff of Lind Bohanan that the 4th Ward Council Member had a standing meeting for Webber Camden scheduled in conflict with this meeting. Since publication of the meeting had already occurred, I resolved the conflict as follows. After discussion with the Council Member's office, it was agreed to retain the September 12 date, but to have Mary Bujold appear also at the end of the Council Member's meeting so that no one would have to choose between attending one meeting or the other. On September 7, Amy Luesebrink, Executive Director of the Shingle Creek and Lind-Bohanan neighborhoods announced the upcoming meeting at the Camden Area Council meeting. On September 8, I called the Executive Director of each of the four neighborhoods coming to the September 12 meeting to reinforce earlier email announcements and phone calls. I reached three of the four and left a message for Debbie Nelson at Victory.

Area 2 – Email notice was sent to the Executive Director and Board of Columbia Park Neighborhood organization on 8/12 requesting that an enclosed notice of their September 6 meeting be included in their quarterly newsletter. On 8/15, similar notice was sent to staff of the McKinley neighborhood, requesting inclusion in their newsletter. On August 24, email notice was sent to the Bottineau, Marshall Terrace, St Anthony West, St. Anthony East, Logan Park, Holland and Sheridan Neighborhoods, the Northside Residents Redevelopment Council and the Hawthorne Area Community Council, requesting that they publicize the meeting among their members.

Area 3 – An initial staff request to try to schedule this meeting on September 21 in conjunction with the SEED Committee, was changed, requiring that we schedule the meeting separately at a later date. A desire by City staff to explore a meeting location near the University required that we delay scheduling a meeting until after September 12 when staff discovered and informed us that adequate parking would not be available there. On that same date, I located a site for the meeting for October 12. On September 19, I sent out email notices to all of the neighborhood organizations in Area 3, requesting their assistance by publicizing the meetings in their neighborhoods. For Prospect Park/East River Road Improvement Association, the email server of Florence Littman would not accept the notice. The message was delivered however, to the organization by two additional addresses, including that of the City's listed staff contact, Joyce Barta. I had also had a previous telephone discussion concerning potential dates with Florence Littman, and spoke to her concerning the email address problem, telling her verbally about the scheduled date.

Area 4 – A YWCA error in their bookings required that an initial September 14 meeting date be rescheduled to a later date. On September 1, email notice was sent to Corcoran and Ventura Village neighborhood staffs in time for their newsletter deadlines, to publicize the October 4 meeting. Similar notice was sent to Seward, Standish-Ericsson, East Phillips Improvement Coalition, and Longfellow Community Council staff, also on September 1. On September 12, I sent meeting publicity information to an additional person at Seward, Rich Thomasgaard, who was also a member of the Steering Committee. On September 16, I sent an additional email reminder of the October 4 meeting to all of the remaining neighborhood organizations in Area 4, again enclosing text for publication, and requesting any additional publicity that the organization might be able to provide.

Publications

Area 1- On August 15, prior to its 8/16 deadline, email notice of and information about the September 12 meeting was sent to the Camden News for publication. Staff from Folwell (outside of Area 1) and Webber-Camden confirmed that they published notice of the meeting in their newsletters. She also indicated that she included notice in their section of their Camden News schedule ad. Staff from Shingle Creek and Lind Bohanan also confirmed that the meeting was included in their Camden News ads. All of the neighborhood organizations were provided with text for publication and asked to publicize the meeting among their members.

Area 2- On August 15, prior to its 8/16 deadline, email notice of and information about the September 6 meeting was sent to the Camden News for publication. All of the neighborhood organizations were provided with text for publication and asked to publicize the meeting among their members.

Area 3 – Gayle Bonneville of Windom Park indicated that she would publicize the September 19 meeting at her Board meeting and Land Committee meeting, other committee meetings and the neighborhood email list notices. The SE Como organization included notice of the meeting in its email newsletter the “Como Tidbits”. A separate flyer was sent to the Marcy Holmes organization to be sent to contacts on their email list. In addition, postcards announcing the meeting were brought to the Marcy Holmes neighborhood office for mailing and distribution to those on the Marcy Holmes Neighborhood Association mailing list. All of the neighborhood organizations were provided with text for publication (in the form of an information flyer) and asked to publicize the meeting among their members.

Area 4 - Katie Hatt from Longfellow Community sent out email notices of the October 4 meeting via the organizations email lists, and included it in their Longfellow/Nokomis Messenger ad. At their board meeting on September 15, Council Member Colvin-Roy announced the meeting and asked board members to attend. All of the neighborhood organizations were provided with text for publication and asked to publicize the meeting among their members.

Additional Neighborhood Meetings for Areas 2 and 4

Notice to groups was given as follows:

Area 2 – On November 8, email notice was sent to all neighborhood organizations in Area 2 announcing a December 6 repeat session of the September 6 meeting, which had been sparsely attended. The organizations were sent a publishable notice text and again asked to assist by publicizing the meeting. On November 28, Mark Spector of Maxfield sent out notice of this meeting to the members of the Steering Committee. On November 29, I sent out a reminder notice to the staff contacts of all the neighborhood organizations in Area 2. This contained an error in one of the two places where it mentioned location. I sent out a notice of clarification on December 1, requesting that anyone who might be confused by this, be re-notified.

Area 4 – On November 8, email notice was sent to all neighborhood organizations in Area 4 announcing a December 1 repeat session of the October 4 meeting, held during a severe rainstorm. The organizations were sent a publishable notice text and again asked to assist by publicizing the meeting. On November 28, Mark Spector of Maxfield sent out notice of this meeting to the members of the Steering Committee. On November 29, I sent out a reminder notice to the staff contacts of all the neighborhood organizations in Area 4.

Publications

Notice of the December 6th meeting for Area 2 was placed in the North News and the Northeaster. Notice was included in both the meeting notices section and 1/8 section display ads were also purchased with notice of the meeting placed in both of these publications. Notice was placed in the North News and the Northeaster. Notice was published in the North News and the Northeaster on 10/27/06. Notice was again published in the Northeaster two more times in November and in the North News one more time prior to the December 6th meeting.

Notice of the December 1st meeting was publicized in the Bridge newspaper. Notice of the meeting was included in The Bridge newspaper under their meeting notices section. The meeting was publicized in the November issue of The Bridge.

Second Neighborhood Meetings

Notice to groups was given as follows:

Area 1 – On February 7 I inquired by email of the staff of all four neighborhood organizations as to the availability of March 14 for a final meeting. On February 8, responding to a noted conflict, I inquired by email of the staff of all four organizations as to the availability of March 15 for the meeting. Confirming that this would not result in conflicts, I turned over the confirmation of a meeting place, and further publicizing of the meeting to Maxfield Research in time for publication to be made in local newspapers, the Camden News and North News.

Area 2 - On February 7, I inquired by email of the staff of all Area 2 neighborhood organizations as to the availability of March 8 for a final meeting. Confirming that this would not result in conflicts, I turned over the confirmation of a meeting place, and further publicizing of the meeting to Maxfield Research in time for publication to be made in local newspapers.

Area 3 – On February 7, I inquired by email of the staff of all Area 3 neighborhood organizations as to the availability of March 2 for a final meeting. On February 10, responding to a noted conflict, I inquired again by email as to the availability of March 22. Confirming that this would not result in conflicts, I turned over the confirmation of a meeting place, and further publicizing of the meeting to Maxfield Research in time for publication to be made in local newspapers.

Area 4 - On February 7, I inquired of the staff of all Area 4 neighborhood organizations as to the availability of March 7 for a final meeting. On February 10, responding to Katie Hatt's observation that March 7 was caucus night, I inquired by email of all organization staff contacts in Area 4 as to the availability of March 21st for the final meeting. Confirming that this would not result in conflicts, I turned over the confirmation of a meeting place, and further publicizing of the meeting to Maxfield Research in time for publication to be made in local newspapers.

Downtown Area

Council Member Goodman noted at the January 20th Council work session that Downtown neighborhoods had not been included in the first round of neighborhood meetings. Maxfield Research Inc. agreed to contact neighborhood organizations in the Downtown area and to hold meetings with those neighborhoods to solicit their input regarding industrial land uses in their areas and feedback regarding the initial findings and preliminary recommendations of the industrial land use analysis. The following meetings were held with Downtown area neighborhood organizations:

Downtown Minneapolis Neighborhood Association – Tuesday, March 14th
Bryn Mawr Neighborhood Association – Wednesday, April 12th
Harrison Neighborhood Association - Monday – April 16th
Elliot Park Neighborhood Association – Thursday – April 20th
North Loop Neighborhood Association – Thursday – May 24th

Maxfield Research Inc. contacted each of these organizations and arranged meetings. All of these meetings were held during the time of a regularly scheduled meeting and the Maxfield presentation was a part of the meeting agenda.

Other Meetings

Maxfield Research Inc. also completed an initial meeting and a follow-up presentation meeting with the members of the Above the Falls Citizens Advisory Committee. This organization's area of responsibility encompasses a significant portion of Area 2 in the Industrial Land Use Analysis. These meetings were publicized through the organization. The initial meeting occurred on Tuesday, November 22nd. The follow-up meeting was held on Tuesday, March 28th.

At the request of the Seward Neighborhood Association, Maxfield Research Inc. met with the neighborhood organization to present information and preliminary findings of the industrial land use analysis and solicit input from the group. This meeting was publicized through the neighborhood association. The meeting was held on Tuesday, March 14th.

Publications

Maxfield Research handled publication of the above meetings in the media. Notices were sent to the following newspapers for inclusion: The Longfellow Messenger (display ad purchased), North News and Northeaster (inclusion in meeting announcements), Camden News (inclusion in meeting announcements), and The Bridge (inclusion in meeting announcements). Email flyers were sent and emailed during the week of February 20th to the Area neighborhood organization coordinators to send out to their contact lists. Maxfield also prepared a group email distribution list to all Minneapolis neighborhood organizations in the City publicizing the meetings and inviting all interested residents to attend. Council members were all notified of the meeting schedule on February 24.

Analysis of Employment Density (Employee per Acre, Building Square per Employee, Floor Area Ratio)

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