Industrial Land Analysis – Executive Summary

In early May, the Office of Economic Development and the Department of Community Planning and Development were jointly asked to examine a number of issues regarding the rezoning of industrial land in the city. In particular, this study examined two questions:

1. What long-term impact would the rezoning of industrial land have on employment generation possibilities in the city?; and

2. How extensive is the issue of existing residential development located in industrially zoned areas, and does the industrial zoning truly represent the city's long-term vision for these areas?

The attached documents prepared by staff of the Community Planning and Development Department and the Office of Economic Development address these issues from both the supply and demand sides. The findings of this research indicate little concern about the recent pattern of rezoning land north of downtown, and only slightly more concern about rezoning land south of downtown from industrial to other uses.

Demand for Industrial Land:

The enclosed analysis indicates relatively little demand for industrial land in the areas north and south of downtown Denver. Industrial uses are declining across the metro area, and while pockets of growth can be found, they are unlikely to occur in the target study areas north and south of downtown Denver. A number of factors lead to these conclusions:

- Manufacturing employment in both the City and County of Denver and the Denver MSA has declined by 23 percent since the late 1990s. The degree of that decline raises concerns that the decline is structural, not cyclical, and is part of an on-going trend.

- While the manufacturing sector as a whole has lost substantial employment, there have been varying trends within the sector. Seven sub-sectors shed jobs consistently, three had declines that may have been cyclical, five showed flat employment and six showed increased employment (one of which may be cyclical). While growing and declining sectors currently have similarly sized employment bases, the pace of decline exceeds the pace of growth.

- Real estate data for corridors north and south of Downtown Denver around Interstate 25 indicate little new construction, increasing vacancy rates and declining demand. Rental rates have declined steadily in these areas, with negative net absorption seen in recent years (and projected to continue).

- Interviews with local commercial Realtors indicate no more than moderate demand for industrial space in Denver, with the corridor north of downtown ripe for conversion to mixed use development but the corridor south of downtown still somewhat competitive as an industrial node.

Supply of Industrial Land:

Given the fact that the demand for industrial land appears to be minimal, it is not surprising that very little concern emerges about the supply of industrial land. This is due to the minimal impact of residential uses in industrial areas, the relatively low value of industrial parcels (indicating sufficient supply) and the relative density of employment in industrial areas when compared to other areas of the city.

- There is a considerable amount of land that is zoned for industrial use. A considerable amount of this industrially-zoned land is vacant or underutilized. Very little of it is used for residential purposes (1.2percent).

- Blueprint Denver does recommend that 633 acres of industrially-zoned land be made available for a mix of uses in the future. However, 8,230 acres are designated for industrial and employment-generating uses. This represents a 13 percent increase over the current supply of industrial land in the city.

- A considerable amount of industrially-zoned land appears underutilized from the perspective that the value of the land is greater than the value of its improvements.

- The median square foot value of developed industrially zoned parcels in the city totals only $7.87 (including improvements). As a comparison, residentially zoned land for single family development at $250,000 per unit would likely sell for approximately $6.90 per square foot, without improvements. With improvements, this typical $250,000 house on a 6,250 square foot lot would amount to $40 per square foot of land. Industrial parcels represent 7.4percent of land in the city but less than 5percent of the total actual value

- The employment density of industrially zoned land in the city was estimated at approximately 11.7 employees per acre. This pales in comparison to the 55 employees per acre in the Denver Tech Center and 73.2 employees per acre in the Cherry Creek area.

- The analysis of re-zonings from industrial to other uses indicates that the large areas that have been re-zoned are consistent with Blueprint Denver and make sense because the previous facilities have ceased operations. The remaining 38 re-zonings only represent 0.7percent of all industrially-zoned land.

Conclusions

Industrially zoned land in the areas under pressure for re-zoning is characterized by a number of factors, including:

- Little demand for industrial development;

- Relatively low land values (and developed values) given the current zoning; and

- Little employment generation potential.

Moreover, only a small share of industrial land has current residential uses and would be impacted by realigning the zoning of those parcels. In sum, this analysis indicates little reason to be concerned about the current pattern of rezoning industrial land to residential in targeted areas north and south of downtown.

ATTACHMENT 1

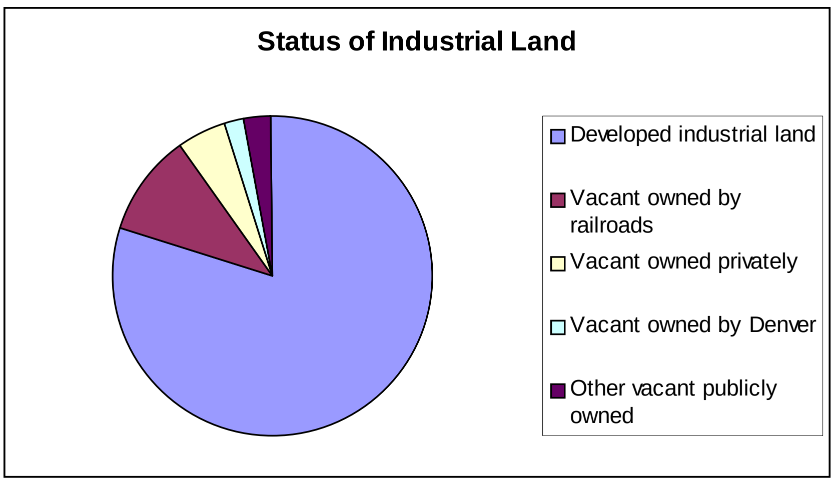
OVERVIEW OF SUPPLY OF INDUSTRIAL LAND IN DENVER
COMMUNITY PLANNING AND DEVELOPMENT

The purpose of this study is to provide an overview of the supply of industrial land within the City and County of Denver. In order to provide this overview, the Assessor's files were utilized as well as the Blueprint Denver Plan Map, and data on recent re-zonings of industrial land to other uses.

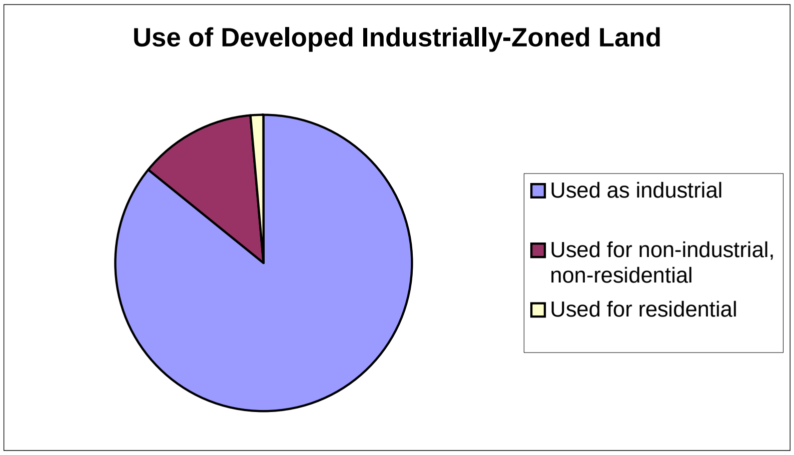
Industrially Zoned Land Status as of August 17, 2004

The status of industrially-zoned land is provided in terms of its current use.

Based on the Assessor's Files, there are 7,277 acres of land in Denver that are zoned industrial. Map 1 shows the location of land that is zoned I-0, I-1, and I-2. Of this total, 1,471 acres are classified as vacant, which represents 20.2% of the total. Given that a significant amount of this land is owned by the railroads or by the public, not all of this land classified as vacant is likely to be available for development.



In terms of the 5,806 acres of developed industrially zoned land, 746 acres (12.8%) are in other than industrial uses of which 89 acres are being used as residences. Thus of the total amount of industrially zoned land, only 1.2% is being used for residential purposes.



Blueprint Denver Concept Land Uses

An integral part of Blueprint Denver is the Blueprint Denver Plan Map that shows the future intended use of land within Denver and how it ties into the proposed, future transportation system. Land within Denver was classified into Areas of Change and Areas of Stability. Areas of Change are generally locations where future development should be directed because of its appropriateness for new development or redevelopment, such as Lowry, Stapleton, and the Gateway or changing areas in and near Downtown Denver. Areas of Change are most often located in places that are, or are proposed to be, served by improved transportation including transit. Areas of Stability generally consist of stable neighborhoods but also include some stable industrial and employment areas. Some industrially-zoned land, especially in North Denver, was identified as Areas of Change but that should remain in industrial or employment-generating uses. This classification recognized that these areas have a considerable amount of marginal industrial uses that could be transformed through improved industrial usage. On the other hand, some land that is now zoned for industrial use was identified as being land that may be more appropriately used differently in the future.

The recommended future usage of the 7,277 acres of industrially-zoned land is shown in the following table:

Type of Future Development in Blueprint Denver for Industrially-Zoned Land	Developed	Vacant	TOTAL
Industrial and employment-generating	4,617	782	5,399
Mixed-use development	462	171	633
Other land uses	727	518	1,245

Overall, 8,230 acres in the Blueprint Denver Plan Map are designated in the future as industrial or employment-generating uses (see Map 2).

Comment [JLC1]: Maybe a note about the difference between the 8,230 and the 7,277 would be helpful for council, in case they are not clear on the two figures.

Redevelopment Potential

The potential for land to redevelop was estimated by comparing the Assessor's market improvement value to the land value. If the ratio of the land value to the improvements value is greater than 1, it indicates that there is the potential for redevelopment. The potential is there because a developer may choose to purchase the land for the purpose of redeveloping it to a higher and better use and can, thereby, economically justify demolishing or adding to the existing improvements. A total of 1,745 acres, constituting nearly one quarter of all industrial land in the city, have a ratio equal to or greater than 1:1. The following table reflects the number of acres with varying degrees of underutilization.

Land to Improvement Ratios for Developed Industrially Zoned Land (Acres)

Greater than 1 and less than or equal to two	513
Greater than 2 and less than or equal to five	414
Greater than 5 and less than or equal to 10	172
Greater than 10	646
Total acres greater than 1	1,745

Combining the ratio of the land value to the improvements value with the median square foot value of developed industrially zoned parcels is another way of looking at the extent of underutilization. The median square foot value is $7.87.

Comment [JLC2]: A note might be helpful here demonstrating that this figure is very low for improved land.

Land to Improvement Ratio and Median Square Foot Value

> 1 and less than or equal to 2 and less than the median value	319
> 2 and less than or equal to 5 and less than the median value	316
> 5 and less than or equal to 10 and less than the median value	125
Greater than 10 and less than the median value	583
Total acres greater than 1 and less than the median value	1,343

Values for all taxable Industrially zoned properties

Another consideration for judging the contribution of industrial land is by looking at its contribution to the tax base relative to other land.

TYPE OF VALUE	VALUE
Total Actual	$2,933,118,300
Total Assessed	$ 832,212,192
Estimated Property Tax (based on a mill levy of 64.162)	$ 53,396,399

The 2003 total actual value of Denver taxable properties is $61,738,000,000. The total actual value of taxable industrially-zoned properties is $2,933,118,300, which represents less than 5% of the value of the city's taxable properties while comprising 7.4% of the total land.

Work Force Density

Industrial uses are important contributors to job creation within the city. However, the number of jobs per acre is considerably lower than other employment-generating uses. To estimate the industrial work force density, Transportation Analysis Zones (TAZ) were selected if the industrially zoned land made up 90% or more of the TAZ. From this, the forty-five (45) selected TAZs consisted of 6,859 acres and 80,062 employees. This averaged out to11.7 employees per acre for the Transportation Analysis Zones that were predominantly zoned industrial. In order to provide some basis for comparison, the Denver Tech Center averages 55 employees per acre and the Cherry Creek area averages 73.2 employees per acre.

Re-Zoned Industrial Land

An analysis was done of land that has been re-zoned from an industrial zone district to another type of zone district over the last five years. The following numbers exclude Stapleton because of its magnitude. The rationale for the re-zoning of Stapleton is that it closed as an airport and is being redeveloped based on an adopted plan.

Rezoned Industrial Land*; 1999 to Present

Properties	Acres
Cherokee	65
Gates	20
Football District	87
Phillips Invest.	20
Balance of the 38	49
42 Properties	241

*Due to the magnitude of the Stapleton project, those rezonings are excluded from this listing.

The total of 241 acres that has been re-zoned (other than Stapleton) is 3.3% of all land that is currently zoned industrial. In addition to Stapleton - Cherokee, Gates, the Football District, and Phillips Investment all have sound rationales for the rezoning and are all consistent with Blueprint Denver. For instance, Cherokee is identified in Blueprint Denver as a Transit Oriented Development area given its proximity to a transit station that serves the Southeast Line and the Southwest Line with direct service to Downtown

Denver. The 38 other relatively small re-zonings only represent 0.7% of currently zoned industrial land.

Conclusions

The following are the major conclusions from this analysis of the supply of industrial land.

1. There are 7,277 acres of land that is zoned for industrial use. A considerable amount of this industrially-zoned land is vacant or underutilized. Very little of it is used for residential purposes (1.2%).
2. Blueprint Denver does recommend that 633 acres of industrially-zoned land be made available for a mix of uses in the future. However, 8,230 acres remain designated for industrial and employment-generating uses.
3. A considerable amount of industrially-zoned land appears underutilized from the perspective that the value of the land is greater than the value of its improvements.
4. In addition, industrially-zoned land has a relatively modest value per square foot compared to other uses. It represents 7.4% of land but less than 5% of the total actual value.
5. Although providing an important source of employment, industrially-zoned land has a relatively low number of employees per acre compared to mixed-use development and other commercial development.
6. The analysis of re-zonings from industrial to other uses indicates that the large areas that have been re-zoned are consistent with Blueprint Denver and make sense because the previous facilities have ceased operations. The remaining 38 re-zonings only represent 0.7% of all industrially-zoned land.

ATTACHMENT 2

OVERVIEW OF DEMAND FOR INDUSTRIAL LAND IN DENVER OFFICE OF ECONOMIC DEVELOPMENT

To understand the characteristics of likely demand for industrial land in Denver, we examined recent employment and real estate trends. Those trends reveal a number of key findings:

- Manufacturing employment in both the City and County of Denver and the Denver MSA has declined by 23 percent since the late 1990s. The degree of that decline raises concerns that the decline is structural, not cyclical, and is part of an on-going trend.

- While the manufacturing sector as a whole has lost substantial employment, there have been varying trends within the sector. Seven sub-sectors shed jobs consistently, three had declines that may have been cyclical, five showed flat employment and six showed increased employment (one of which may be cyclical). While growing and declining sectors currently have similarly sized employment bases, the pace of decline exceeds the pace of growth.

- The warehousing and storage sector lost jobs during the recent downturn. However, even after this decline, the sector's absolute employment numbers far exceed those seen in the early and mid-1990s. It is unclear whether this decline is structural and likely to continue or cyclical and likely to reverse.

- The wholesale trade sector saw relatively flat (although slightly decreasing) employment in recent years. Only one sub-sector of wholesale trade (electronic markets, agents and brokers) has experienced steadily declining employment in metro Denver since the early 1990s.

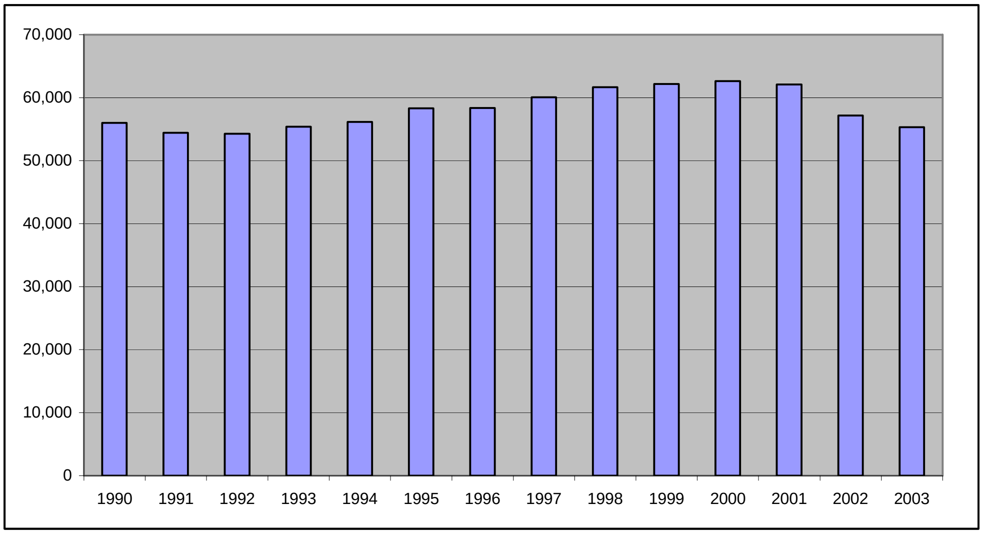
- Real estate data for corridors north and south of Downtown Denver around Interstate 25 indicate little new construction, increasing vacancy rates and declining demand. Rental rates have declined steadily in these areas, with negative net absorption seen in recent years (and projected to continue).

- Interviews with local commercial Realtors indicate no more than moderate demand for industrial space in Denver, with the corridor north of downtown ripe for conversion to mixed use development but the corridor south of downtown still somewhat competitive as an industrial node.

Recent industrial employment

Industrial employment in the City and County of Denver comes primarily from three sectors: manufacturing, warehousing and storage and wholesale trade. Together, these constituted 54,000 jobs in Denver in December 2003, making up 12.7 percent of all Denver jobs. These sectors grew steadily through 2000, when they began a rapid decline.

Exhibit 1.
Total Denver Manufacturing, Warehousing/Storage and Wholesale Trade Employment



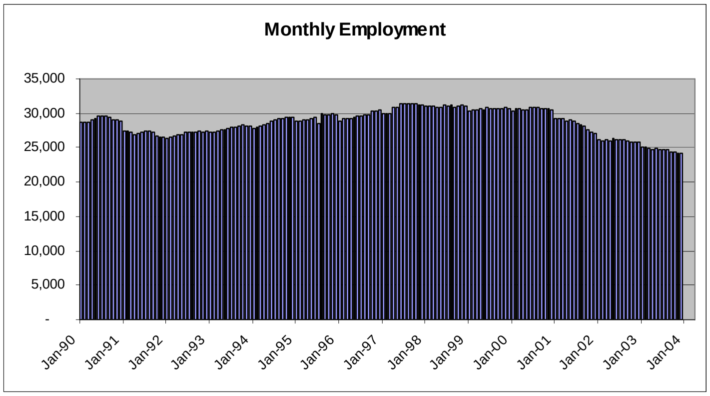
In examining these sectors more closely, manufacturing appears to be in the midst of a structural decline. Warehousing and storage has also declined, but to a small enough degree that the decline may be cyclical, and wholesale trade has remained relatively flat.

Manufacturing.

The manufacturing sector in the City and County of Denver declined steadily beginning in 2001. By December 2003 it had reached its lowest level in more than a decade, with only 24,104 jobs. These represented a 23 percent decline from the high of 31,422 in August 1997. The December 2003 figure was lower (by more than 2,000 jobs) than levels seen during the recession of the early 1990s. Similar trends were seen at the Denver MSA and state levels, although the declines in these areas were not as steep as those within the City limits.

Exhibit 2.
Manufacturing Employment in Denver

Denver



Metric	Date	Number of Jobs
High	Aug-97	31,422
Low	Dec-03	24,104
Median	Nov-90	29,004

While a decline in the sector appears evident at the city, metropolitan area and state levels, this trend obscures variable activity within the sector. From 1990 through 2003, ten manufacturing sub-sectors saw declining employment, five experienced flat employment and six had increasing employment. Three of the declining sub-sectors and one of the growing sub-sectors may have been cyclical, but the others reflect trends that have not been substantially impacted be recent business cycles.

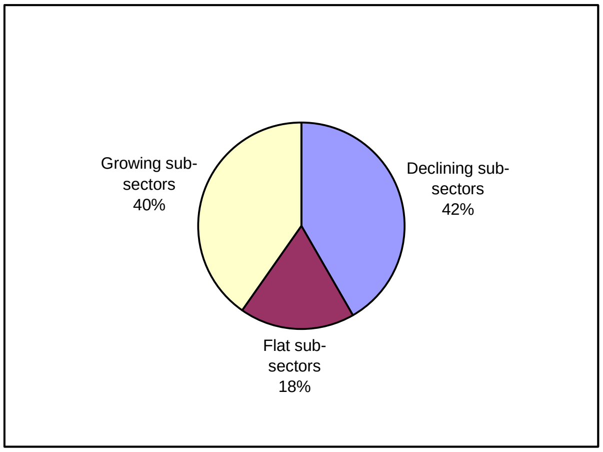
Exhibit 3.
Trends in Manufacturing Sub-Sectors

Declining Sub-sectors	Flat Sub-sectors	Growing Sub-sectors
Apparel manufacturing	Beverage and tobacco products	Food manufacturing
Computer and electronics*	Chemical manufacturing	Furniture and related products*
Electrical equipment and appliances*	Miscellaneous manufacturing	Non-metallic mineral products
Fabricated metal products*	Petroleum and coal	Textile product mills
Leather and allied products	Transportation equipment	Primary metal manufacturing
Machinery manufacturing		Wood products
Paper manufacturing		
Plastics and rubber production		
Printing and related support		
Textile mills		

Note: *Changes in these sectors were not consistent from 1990 to 2003 and may be cyclical.

Declining sub-sectors made up 10 of the 20 total sub-sectors and approximately 42 percent of total employment. Growing sub-sectors made up 40 percent of manufacturing employment, while flat sub-sectors comprised the remaining 18 percent.

Exhibit 4.
Manufacturing Sub-sectors by Growth Patterns



The mix of flat and declining sub-sectors is important to recognize. While the sector as a whole has declined substantially in recent years, the equal size of growing and declining sub-sectors would seem to indicate the potential of employment flattening out. However, declining sub-sectors lost jobs at a rate of over 4 percent per year over the past 10 years, while growing sub-sectors only experienced 1.5 percent annual growth. While the trends may begin flattening out, the relative pace of growth and decline indicates that the manufacturing sector is likely to continue its recent descent in the near future.

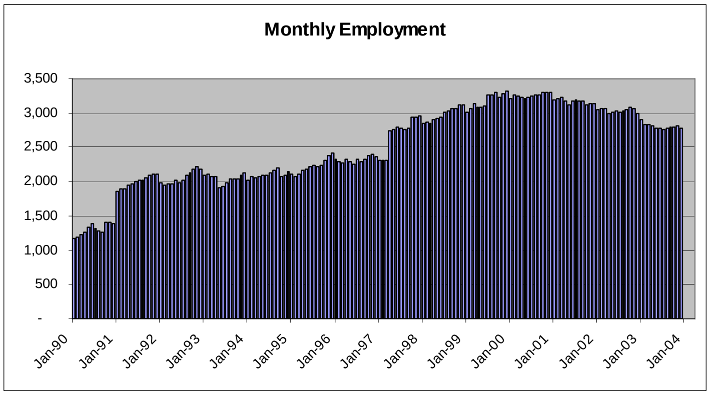
Warehousing and storage

The warehousing and storage sub-sector is the only part of the Transportation & Warehousing sector impacted by changes in industrial real estate. With fewer than 3,000 jobs in the City and County of Denver, it represents less than five percent of the jobs examined.

The sub-sector saw strong growth through the 1990s peaking in late 1999. Since that time it has declined slowly at the City, metropolitan area and statewide levels. The beginnings of a recovery may have emerged in late 2003, although it is too early to confirm this trend. The relatively shallow decline, accompanied by strong growth through the 1990s, suggest that the decrease was cyclical and will be corrected.

Exhibit 5.
Warehousing and Storage Employment in the City and County of Denver

Denver



Metric	Date	Number of Jobs
High	Dec-99	3,311
Low	Jan-90	1,170
Median	Oct-96	2,378

Wholesale trade

Unlike manufacturing, warehousing and storage, wholesale trade may only indirectly impact the demand for industrial land in Denver. However, growth in the wholesale trade sector could drive demand in the other sectors examined. In particular, the "merchant, durable goods" sub-sector of wholesale trade could impact manufacturing, warehousing or other industrial uses in the City.

Employment in wholesale trade remained relatively flat over the period analyzed (1990 to 2003). There was only a 14 percent difference between the high and low employment figures, and the low number occurred in the early 1990s. While the sector has declined since 2001, the decline has been less sharp than that seen in manufacturing. There can be no assurance that the decline is cyclical, but its shallow slope indicates that possibility.

Despite the flat trend of the sector as a whole, its three sub-sectors had different patterns over the last 13 years:

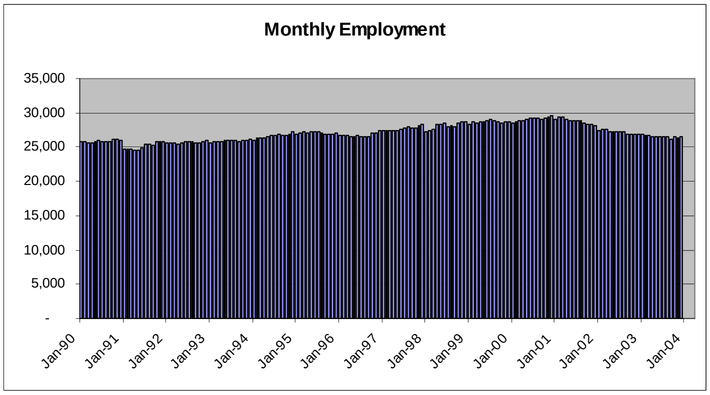
- The "merchant, durable goods" sub-sector saw slow growth through 2001 and a slow decline since that time. This sub-sector's 15,000 jobs make up more than half of all jobs in the wholesale trade sector.

- The "merchant wholesalers, non-durable goods" sub-sector saw minimal growth or declines over the period within the City limits, although the sub-sector did see steady (albeit slow) growth in the metro area. This sub-sector's more than 8,000 employees in the City represent a third of all sector jobs.

- The "electronic market, agents, brokers" sub-sector is the smallest in the sector, representing less than 10 percent of sector jobs. The sub-sector's employment in the City limits declined steadily from the early 1990s until late 2003. However, this sub-sector stabilized in the late 1990s both statewide and in the metropolitan area and since that time has seen steady growth in those areas.

Exhibit 6.
Wholesale Trade Employment in the City and County of Denver

Denver



Metric	Date	Number of Jobs
High	Dec-00	29,528
Low	Arp-91	25,424
Median	Nov-95	26,925

Summary of employment findings

The need for industrial space will potentially be reflected in employment levels in the manufacturing and wholesale trade sectors and in the warehousing and storage sub-sector. All saw declines or flat growth in the early 2000s, although the declines may have been cyclical in some cases.

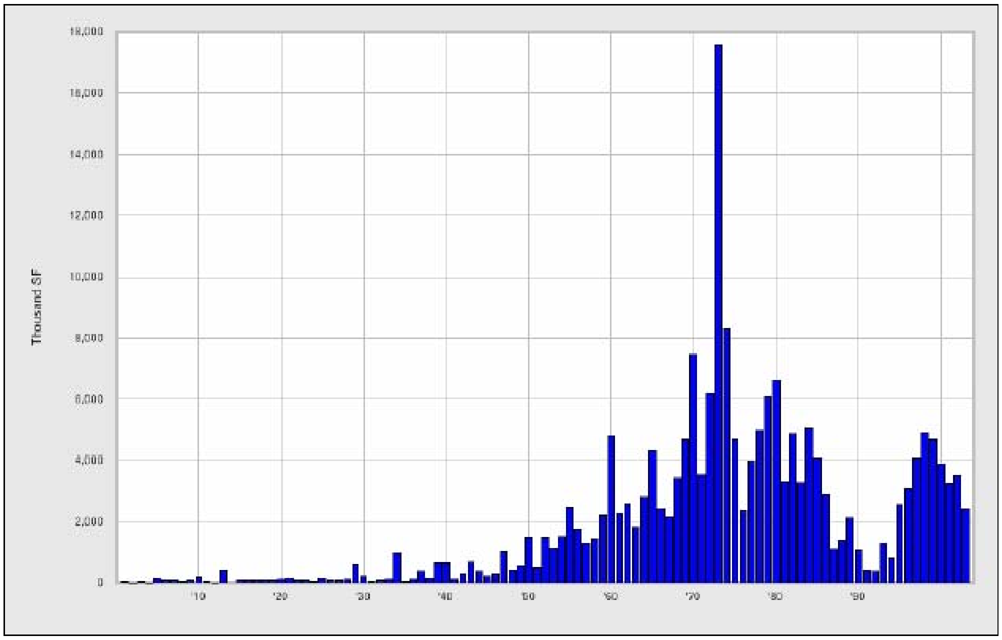
Only six of 21 manufacturing sub-sectors grew steadily in recent years, representing 40 percent of all manufacturing employment. The warehousing and storage segment declined through the 1990s but may be poised to recover further after the recent downturn. The wholesale trade sector has been flat in recent years. Given these trends, new demand for industrial space is expected to come from a handful of sub-sectors:

- Food manufacturing;
- Furniture and related products;
- Non-metallic mineral products (clay, porcelain, china, building materials, etc.);
- Textile products;
- Primary metal manufacturing; and
- Warehousing and storage.

Real estate trends

Throughout Denver, construction of industrial space peaked in the 1970s and remained at moderately high levels through the mid-1980s. After a nearly 10-year decline, construction resumed in the mid-1990s, before declining recently. A brief review of local real estate activity reveals that much of the post-1990 construction occurred along the Interstate 70 corridor.

Exhibit 7.
Citywide Historical Deliveries of Industrial Space



Source: 2002-2004 CoStar Realty Information, Inc.

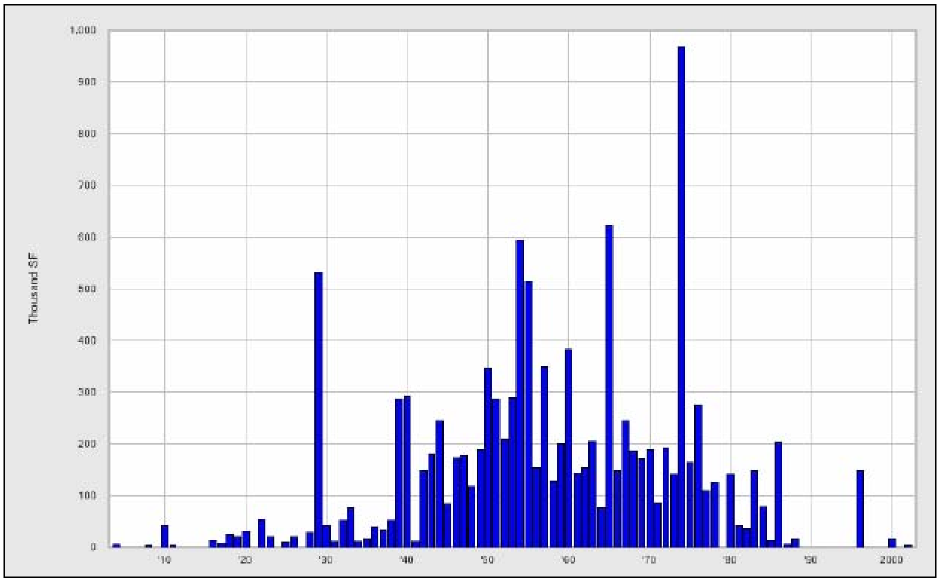
The citywide real estate trends provide context for pressures on industrially zoned land in selected areas. To focus on the relevant industrial real estate trends, we looked closely at the two areas with significant industrial zoning that were identified as "areas of change" in the *Blueprint Denver Land Use and Transportation Plan*. These areas roughly follow Interstate 25 and run from north of Interstate 70 south to Mississippi Avenue. While the specific boundaries can be debated, these general areas are the neighborhoods where the real estate market is exerting pressure to rezone from industrial to other uses.

North of downtown

The area north of downtown along Interstate 25 and Brighton Boulevard has a six percent vacant rate in its 425 industrial buildings, with triple net rents ranging from $1.31 to $8.00 per square foot. Vacancy rates have fluctuated between six and seven percent in recent years. In eight of the past 12 quarters, absorption of industrial space has been negative (more businesses leaving than signing leases). Accordingly, average rents have declined steadily from $5.12 per square foot in early 2001 to $4.04 per square foot in the third quarter of 2004.

Development of new industrial space in the area followed a similar pattern to that seen citywide until 1990. However, with the exception of one year in the late 1990s, the area did not see the mini-boom experienced citywide in the late 1990s.

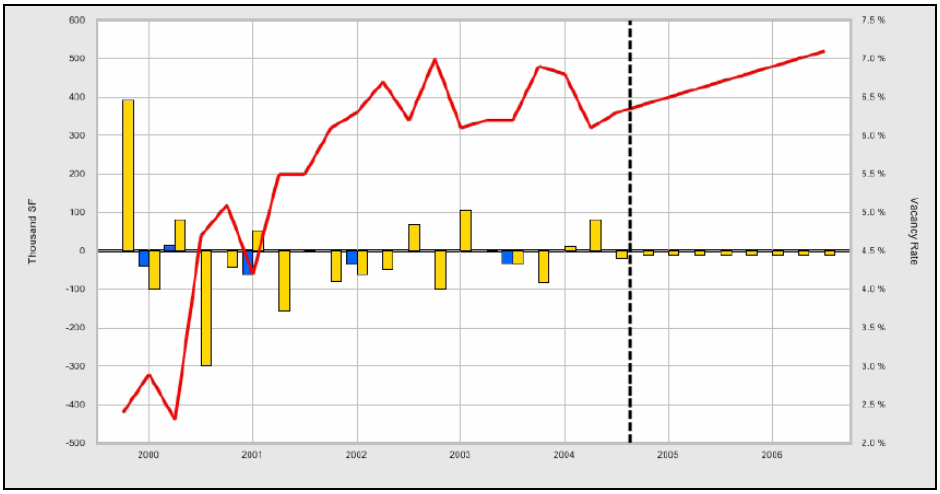
Exhibit 8.
Historical Deliveries of Industrial Space North of Downtown



Source: 2002-2004 CoStar Realty Information, Inc.

Forecasts for the area anticipate continued negative net absorption, increasing vacancy rates and no new deliveries in the next two years. While forecasts are always uncertain, the lack of recent development and the consistent negative absorption lends credibility to this projection.

Exhibit 9.
Forecast for Industrial Space North of Downtown



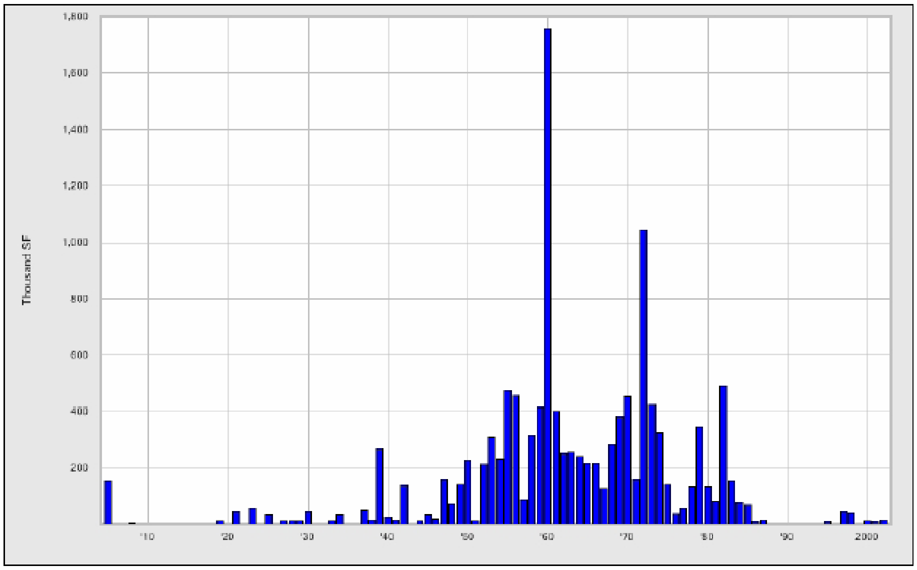
Source: 2002-2004 CoStar Realty Information, Inc.

South of downtown

The area south of downtown has followed a pattern similar to the north area. Vacancy rates in its 481 buildings grew from a low of 3.9 percent at the end of 2001 to a high of 5.8 percent in late 2003. While they have declined somewhat since then, these rates remain well above 5 percent. Lease rates had a wider range south of downtown, with a low of $1.31 but a high of $25 per square foot. Average lease rates declined from $5.66 per square foot in late 2001 to the current level of $4.88 per square foot.

Like the area north of downtown, no significant additions to the industrial space have been seen since the mid-1980s. Net absorption has been negative in seven of the last 12 quarters with a total net loss of over 200,000 leased square feet since the fourth quarter of 2001.

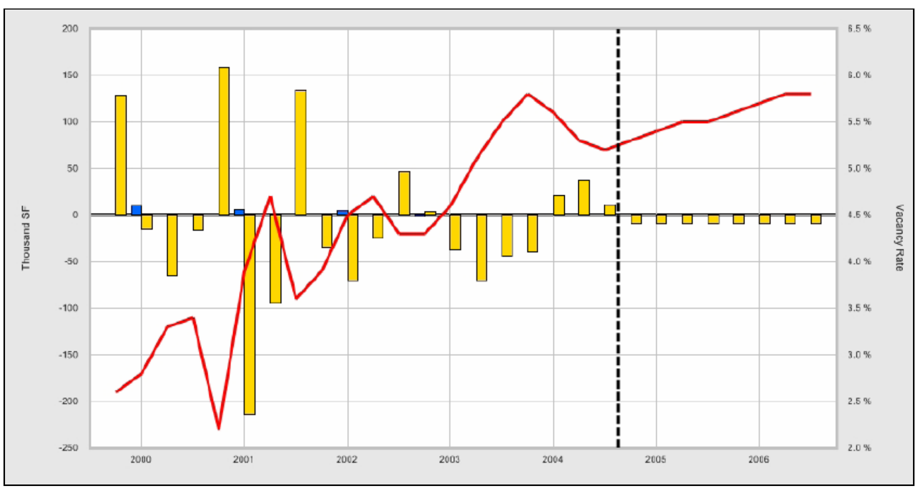
Exhibit 10.
Historical Deliveries of Industrial Space South of Downtown



Source: 2002-2004 CoStar Realty Information, Inc.

Given the lack of development and the negative absorption, it is not surprising that the forecast for the next two years is for continued negative absorption and gradually increasing vacancy rates. No new deliveries are projected through the end of 2006.

Exhibit 11.
Forecast for Industrial Space South of Downtown



Source: 2002-2004 CoStar Realty Information, Inc.

Summary of real estate trends

Industrial real estate in Denver experienced rapid development during the 1970s and early 1980s, with a significant decline in the mid-1980s. Activity ramped up again citywide in the mid-1990s, although not to levels seen 20 years earlier. Despite the citywide rebound in the 1990s, the industrial areas north and south of downtown did not see a resurgence in activity. In contrast, only minimal construction took place in those areas, with negative absorption seen since 2001. Forecasts by CoStar, a respected commercial real estate analysis company, predict no new construction and declining absorption in the near future in these target areas.

Interviews with commercial realtors

In addition to reviewing employment and real estate data documenting trends in industrial development, we interviewed commercial Realtors active in the Denver industrial market to understand their perspective on potential industrial development. These individuals saw Denver as moderate, but not highly promising, industrial market. Most hotspots for industrial development in the metro area were identified as being outside of the city boundaries, including Jordan Road, Parker Road, C-470 and portions of Adams County.

When asked to specifically comment on areas north and south of downtown, their views were somewhat divergent. One person noted that "south of downtown is still a decent industrial corridor," while others did not share that optimism. North of downtown, every person interviewed felt that mixed use made more sense than industrial development. Even from a job creation standpoint, some interviewees raised questions about the wisdom of saving land for industrial development. One person commented that "industrial development doesn't create jobs – a 250,000 square foot warehouse may employ as few as four people. Better job creation would come from high density development of residential and retail. Overall, interviewees saw the wisdom in preserving some degree of an industrial core south of downtown, but felt that the corridor north of downtown should be allowed to convert to mixed use.

Summary

This review of employment, real estate and interview data leads to a number of conclusions about industrial land development in Denver.

- Employment levels in sectors that drive industrial land development have declined substantially in recent years. While some sub-sectors have grown in recent years, the rapid decline of others makes it unlikely that Denver will see substantial demands for industrial space in the near future.

- Very little industrial development has taken place in the corridors north or south of downtown since the mid-1980s. While Denver did see some industrial growth during the 1990s, this occurred in other parts of the City such as the I-70 corridor.

- Commercial Realtors active in industrial development do not see significant promise for industrial land north of downtown and recommend that parcels in that area be allowed to convert to mixed use. South of downtown, however, the industrial core is seen as more stable.