# chicago sustainable industries

Phase One: A Manufacturing Work Plan for the 21st Century



















Produced and Published by
City of Chicago
Department of Housing and Economic Development
121 N. LaSalle Street, Room 1000
Chicago, IL 60602
www.cityofchicago.org
March, 2011

# Table of Contents:

Introduction	2
Manufacturing in Chicago	4
Evolution of CSI	6
Vision and Work Plan	8
Chicago's Manufacturing Base	10
Manufacturing Sub-Sectors	12
Resources	20
Citywide Maps	22
Zoning Code Matrix	30
Industrial Corridor Maps	31
City Incentives	80
Local Industrial Retention Initiative (LIRI) Map	83
Acknowledgements	84

### **Introduction:**

Chicago's Sustainable Industries (CSI) initiative is being developed to support the city's manufacturing sector within an evolving global economy. The initiative's first phase establishes a process that will lead to a formal government strategy that maximizes public resources for the sector's long-term viability for local workers, the business community and the urban environment. The process, background and relevant resources are presented in this document.

The CSI initiative is targeting existing manufacturers along with specific manufacturing sub-sectors that demonstrate an enduring, positive influence on Chicago's economy. These sub-sectors, collectively referred to as the city's manufacturing base, are characterized by a greater labor concentration than national norms, sales activities that occur beyond the city and region, and exceptional connections with other types of local businesses.

Manufacturers, by definition, are engaged in the mechanical, physical, or chemical transformation of materials, substances or components into new products, typically within establishments referred to as factories, plants and mills. Though Chicago and the United States have experienced substantial declines in manufacturing employment in recent decades, the city remains the nexus of the country's historically most production-oriented region. In 2010, approximately 65,000 people were employed by 2,600 companies operating within city limits, according to the Illinois Department of Employment Security. The United States, meanwhile, still produces more goods than any other country; approximately 20 percent of the world's total output, according to the Chicago Federal Reserve.



Urban U.S. manufacturers that thrive in today's global economy are not affiliated with the smokestack industries that defined prior eras. They are advanced, high-tech companies that lead other sectors in sustainable practices and employee training, especially for jobs that involve complex, computerized production equipment. Successful companies also heavily invest in research and development (R&D) efforts, with manufacturing firms accounting for 45 percent of all R&D conducted domestically by private firms, according to the Manufacturing Institute.

Local economies are directly influenced by manufacturing through goods-producing employment and indirectly through the outsourcing of transportation and logistics, accounting, marketing, legal and other related services. In Chicago, these characteristics are reflected in a skilled manufacturing workforce, comprehensive transportation networks and dedicated land use policies that provide suitable work environments for production- and distribution-oriented business activities.

As the global economy presents new opportunities and challenges for manufacturers and affiliated service providers, government agencies are seeking ways to provide competitive advantages. By focusing on existing companies, the sub-sectors most closely associated with Chicago's manufacturing base, and the city's competitive advantages, the CSI initiative will reinforce this important aspect of the city's overall business diversity and its historic role as the country's production capital.

#### CSI's Definition of Sustainability

Sustainable industries are those economic sectors with potential for long-term, positive impact on Chicago's economy, environment and workers. These "base sectors" either export goods or services or provide crucial support to the companies that do. Chicago's sustainable industries possess operating needs and requirements that align with the area's indigenous assets (market demand, industrial base, workforce, real estate, transportation and technology) and provide well-paying jobs for residents. They may also function in support of the environment through the products or services they deliver or by their sensitivity to the area's natural resources, or both. Businesses and jobs that are characterized as "green" are one component of sustainable industries, provided they also help achieve Chicago's broader economic development objectives.

# Manufacturing in Chicago:



For much of its history, Chicago was synonymous with the production of durable and non-durable goods for both business and consumer use. While many factors have reduced manufacturing employment in Chicago and throughout the US to about one fourth of its levels in 1950, local manufacturers continue to provide high-skill jobs and above-average wages that have long served as a threshold to the middle class. Instead of the steel, consumer electronics, sporting goods, toys and musical instruments that dominated the local output of previous eras, the sector today leads the country in the production of electrical equipment and components, fabricated and primary metals and food, among other goods.

The history of manufacturing in Chicago both reflects and rejects national and global trends. While employment swelled when the nation's economy was more production-oriented in the first half of the 20th century, local manufacturing jobs started to drop as the economy became more consumer-oriented following World War II. Numerous factors contributed to the decrease: manufacturing productivity gains reduced labor demands; the expansion of the interstate highway system made manufacturers less dependent on urban areas for transportation and labor resources; cheaper taxes, labor and land costs in other cities and countries offered greater profit margins; federal policies protected the viability of certain industries at the expense of others; and manufacturers focused on core competencies by outsourcing certain services to specialized firms, resulting in lower employment totals for the sector.

Despite these factors, manufacturing remains a vital part of Chicago's economy and the city remains closely associated with manufacturing compared to the nation's other traditional production centers. The association persists, in part, due to the infrastructure and labor skills available to Chicago manufacturers. According to a recent, independent survey of 1,000 industrial businesses, nearly two thirds indicated they operated in Chicago due to its air, truck, rail and inter-modal connections. The remaining third almost entirely said Chicago's number one community strength was its workforce; a labor pool that tops 4.5 million people region-wide.

Exceptional location, transportation and labor resources have long served to attract and retain industrial companies in Chicago. The transportation network developed more than 150 years ago with the convergence of railroads serving the Union Stockyards. The rail lines eventually expanded to serve industrial users along local waterways and in other parts of the city that offered competitive advantages. The concentrated industrial uses in these areas eventually led to specific zoning provisions to protect and enhance their roles for industry. Today, a large percent of city land with a manufacturing (M) zoning designation is located within or adjacent to one of the city's 24 designated Industrial Corridors. Recognizing the value of these areas, the City established the Industrial Corridors in the 1990s and focused its industrial retention efforts there. In addition to providing the appropriate zoning and a compatible industrial environment, Chicago's industrial corridors provide convenient access to truck routes, interstate highways, waterways, rail yards and other infrastructure assets that are essential to industrial companies. Half of the corridors also contain Planned Manufacturing Districts (PMDs), a zoning designation that discourages opportunities for incursion by certain retail and all types of residential development. Most corridors also offer Tax Increment Financing (TIF) and other incentives to encourage existing businesses to invest in their facilities and new companies to locate in the city.

#### Thoughts on Industry

The Midwest is the traditional spear-point for the American economy. It was the frontier when the first pioneers moved west. Its mills and factories powered America's Industrial Revolution. Here, commerce boomed and labor wars first raged. The Great Depression began on Midwestern farms; when the nation recovered, the Midwest recovered first. Two decades later, the Midwest felt the first ravages of the Rust Belt and the first sting of Japanese competition. What happens to America happens first in the Midwest.

Richard C. Longworth. Can the Midwest regain its economic clout?

Chicago Tribune Magazine. January 6, 2008.

Since the 19th century, Chicago and the surrounding region have functioned as the primary hub of the North American rail network. All of the largest North American Class I railroad networks directly access the region, and, in recent years, more than one out of every four railroad shipments have impacted the region by traversing, starting or ending here. With the addition of well-developed highway and air facilities during the 20th, Chicago became the freight hub of the Midwest, a position that has now been strengthened through its development as a key international gateway; Chicago is now the third-largest transit point for international freight worldwide, after Hong Kong and Singapore.

Global Insight. Chicago Railroad Economic Opportunity Plan Technical Memorandum No. 1.

Prepared for the City of Chicago Department of Transportation. December 21, 2007.

# **Evolution of CSI:**

CSI is the City of Chicago's first effort to coordinate the economic, social and environmental aspects of Chicago's manufacturing sector as part of a single, comprehensive planning effort. While each aspect has been addressed through individual departments and programs, the coordinated initiative evolved in conjunction with a grant from the U.S. Department of Commerce's Economic Development Administration (EDA), which operates a trade assistance program for communities experiencing job losses as a result of international trade agreements. In Chicago, 75 percent of all businesses certified by EDA to have suffered job losses since 2007 due to trade agreements are classified as manufacturers. The grant will be used on behalf of these and other goods-producing companies to develop CSI strategies that foster their viability.

The City of Chicago already serves manufacturers in many ways. Through various departments and sister agencies, it has made ongoing investments in public infrastructure; provided financial assistance for company relocation and expansion projects; established the Local Industrial Retention Initiative (LIRI) to help companies within individual industrial corridors; started long-term initiatives to address rail-specific transportation improvements; modified its building code and parking requirements for industrial structures; hosted conferences to highlight changes and improvements involving city policies and sustainable assistance programs; and sought federal assistance in dealing with foreign policy and trade issues.

The city has also addressed the sustainability of its built environment. The efforts include a 2004 mandate that all new and rehabilitated public buildings, as well as private buildings that utilize city assistance, include sustainable elements such as LEED, an internationally recognized green building certification system. The city also started participation in the Waste to Profit Network to divert reusable waste from landfills; established the Eat Local Live Healthy Plan to, in part, support local food manufacturers; and hosted the Green Expo to give more than 300 manufacturers an update on the movement toward green products.

The city has also focused resources on its labor force. The city's workforce development activities include TIFWorks, which helps manufacturers finance worker-training initiatives, and participation in the Chicago Manufacturing Renaissance Council (CMRC), a partnership focused on making Chicago the global leader in modern manufacturing and preparing job seekers for well-paying manufacturing jobs. CMRC founded Austin Polytechnical Academy (APA) in 2007, to educate the next generation of leaders in advanced manufacturing. Located on Chicago's West Side, APA is a college and career prep public high school with a focus on manufacturing and engineering.



#### Thoughts on Industry

In a paper co-authored with the Cameroonian economist Celestin Monga, Justin Yifu Lin, the current chief economist at the World Bank argued that governments must "regain center stage." Industrial Policy (known to critics as "picking winners") has a bad name in the West, he said, and for good reason: it has failed more often than it has succeeded. But the only thing worse is not having an industrial policy. He and Monga cited a major 2008 study that looked at thirteen countries that had managed to sustain high growth for long periods after the Second World War. "In all the successful countries, the governments play a very proactive role," he told me. He favors a kind of "soft" industrial policy, in which a clamorous free market produces new industries and firms, and the government spots the best prospects and helps them grow by giving them tax breaks and building infrastructure like ports and highways. It's a marriage of Chicago and China: to rise out of poverty, he and Monga write, markets are "indispensable" but government is "equally indispensable."

Evan Osnos. The Boom Doctor. The New Yorker. October 11, 2010.

Unfortunately, the broad public view of manufacturing is negative and cynical. Manufacturing exists in a societal context. As one employer put it: "It seems to me that the issue at stake is to raise the bar on what it means to be in the (manufacturing) trades in society. In Europe it's wonderful to be in the trades, you're considered on par with other respected trades. It is just another path that you have chosen for your career. Here it's 'Oh, you work in a factory – gee, I'm sorry to hear that.' We need to change that, and that is largely a cultural issue. . . "

Center for Labor and Community Research. The State of Illinois Manufacturing – A report for the Illinois Manufacturers' Association. December 2003.

### Vision and Work Plan:

Once established, the CSI strategy will guide and advocate for public resources that promote the viability of Chicago's manufacturing base. It will support goods-producing companies that draw dollars into Chicago from other areas, serve to retain and re-circulate those dollars within city limits, guide policies that promote the sector's sustainability, and re-establish public awareness about the importance of manufacturing to the local economy.

#### THE CSI TEAM HAS FORUMULATED THE FOLLOWING GOALS AND WORK PLAN FOR DEVELOPING THE STRATEGY:

- Examine the effectiveness of the planned manufacturing districts as stipulated by the Chicago Zoning Ordinance and review industrial corridor boundaries to determine if amendments are needed
- Set infrastructure priorities to reflect key industry goals
- Identify business service priorities by sector, geographic and/or other focuses





- Specify performance objectives for meeting the short and long-term business and workforce program goals
- Design publicly accessible interactive data base for industrial properties, using the 2011 land use and company survey
- Assess the need for industrial land assemblage, and if warranted, develop priorities and an associated management structure/organization
- Review industry developed environmental certifications for key industries for use with city assisted projects
- Provide renewable energy technology incentive options
- Explore corridor-wide storm water management strategies for each industrial corridor

#### Thoughts on Industry

One of the perversities of this recession is that as the unemployment rate has risen, the job vacancy rate has risen, too. Manufacturing firms can't find skilled machinists. Naryana Kocherlakota of the Minneapolis Federal Reserve Bank calculates that if we had a normal match between the skills workers possess and the skill employers require, the unemployment rate would be 6.5 percent, not 9.6 percent. . . There are several factors contributing to this mismatch (people are finding it hard to sell their homes and move to new opportunities), but one problem is that we have too many mortgage brokers and not enough mechanics.

Brooks, David. The Genteel Nation. Op-ed columnist, NYTimes.com. September 9, 2010.

# Chicago's Manufacturing Base:

Chicago's manufacturing base is represented by companies that sell their goods outside of the region. By exporting, these manufacturers bring new dollars into the local economy, resulting in additional benefits for the companies, their workers, and their communities. Economists commonly use a method known as location quotient, or LQ to determine the extent to which manufacturers are selling outside the region. Location quotients are calculated to determine whether or not a local economy has a greater share of an industry than would be expected by national norms. If local employment in any sector is higher than the national average, the sector is assumed to exceed local needs and is therefore producing goods for export. If employment is lower than the national average, it assumes it is receiving goods from someplace else. An LQ that increases over time is an indication that the sector is gaining ground; suggesting that there is an increasing competitive advantage to doing business in the city.

The importance of manufacturers to the city is also evident in secondary sectors that are tied to the health of the economic base. As export-oriented companies draw income from sales outside the region, that income is distributed to their suppliers and workers, who further distribute it within their communities. This generation of additional dollars is known as the multiplier effect. Manufacturing's multiplier is approximately 2.1, meaning that \$1 of demand for manufactured goods yields an additional \$2.10. A multiplier of 2.1 is relatively high compared to other types of Chicago industries.

Based on LQ analyses, CSI identified approximately 15 sub-sectors that have a high or growing location quotient in Chicago. Pages 11 through 18 provide a description of each sub-sector.







#### Thoughts on Industry

- The United States is the world's largest manufacturing economy, producing 21 percent of global manufactured products. Japan is second at 13 percent and China is third at 12 percent.
- U.S. manufacturing produces \$1.6 trillion of value each year, or 11 percent of U.S. GDP.
- Manufacturing supports an estimated 18.6 million jobs in the U.S. about one in six private sector jobs. Nearly 12 million Americans (or 10 percent of the workforce) are employed directly in manufacturing.
- In 2009, the average U.S. manufacturing worker earned \$70,666 annually, including pay and benefits. The average non-manufacturing worker earned \$57,993 annually.
- U.S. manufacturers are the most productive workers in the world twice as productive as workers in the next 10 leading manufacturing economies.

A group of eight manufacturing industries is expected to increase employment collectively by 364,000 (10 percent) in the 2010-2014 period. These industries include: primary metals, miscellaneous manufacturing (mainly medical equipment), wood products, printing, plastics, non-metallic minerals, paper products and electrical equipment. Together, these industries accounted for 25 percent of manufacturing production in 2008 and employed 32 percent of the manufacturing workforce, a share that will be maintained in 2014.

National Association of Manufacturers. The Turning Tide: Prospects for a Manufacturing Recovery – Labor Day 2009: The Manufacturing Report. Sept. 2009

The four industry clusters that account for 64% of all Illinois manufacturing employment are metal manufacturing, electrical, printing and food manufacturing.

Center for Labor and Community Research. The State of Illinois Manufacturing – A report for the Illinois Manufacturers' Association. December 2003.

# Manufacturing Sub-Sectors

CSI's guiding goals and strategies are primarily intended to support existing Chicago manufacturers and specific sub-sectors that have a high or growing location quotient in the City of Chicago. The sub-sectors, as described by the North American Industry Classification System, include:

#### **Apparel**

The apparel sub-sector cuts and sews existing fabrics to create products for retail and wholesale distribution. Knitting, when done alone, is classified in the Textile sub-sector. When used for the production of complete garments, knitting is classified here.

#### Beverage and Tobacco

Beverage and tobacco companies manufacture tobacco and three types of beverage products: nonalcoholic beverages; fermented alcoholic beverages and distilled alcoholic beverages. Ice is included with nonalcoholic beverage manufacturing because it uses a similar production process.

#### **Electrical Equipment and Appliances**

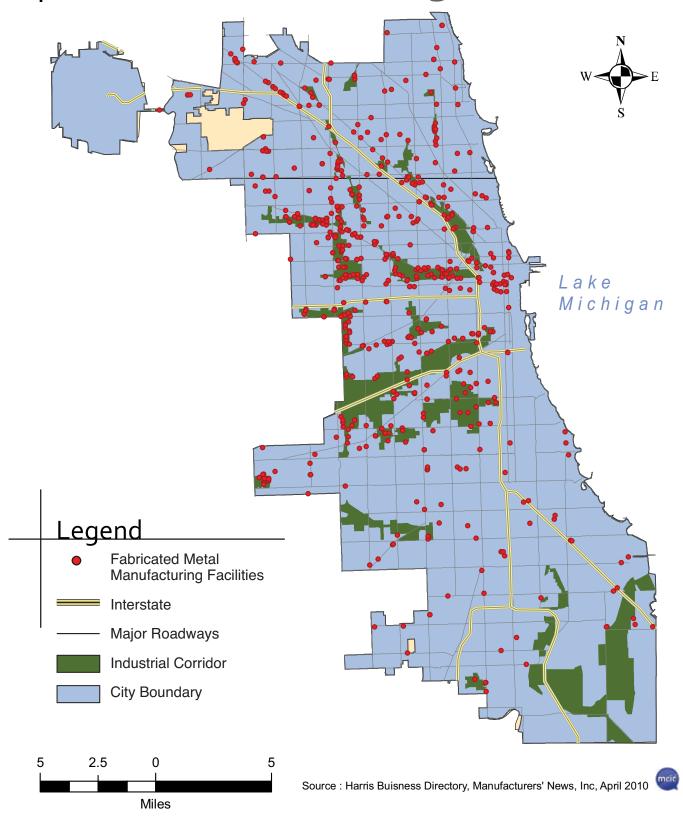
The electrical equipment and appliances sub-sector manufactures products that generate, distribute and use electrical power. Electric lighting equipment companies produce electric lamp bulbs, lighting fixtures and parts. Household appliance companies make both small and major electrical appliances and parts. Electrical equipment companies make goods such as electric motors, generators, transformers and switchgear apparatus. Other electrical equipment and component companies make devices for storing and transmitting electricity, such as batteries, wiring, outlets and fuse boxes.



#### **Fabricated Metals**

Fabricated metals companies transform metal into metal furniture as well as intermediate or end products other than machinery, computers and electronics. Some companies treat metals and metal formed products fabricated elsewhere. Processes include forging, welding, stamping, bending, forming and machining to shape and join individual pieces of metal.

# Chicago Fabricated Metal Manufacturing Facilities





#### Food

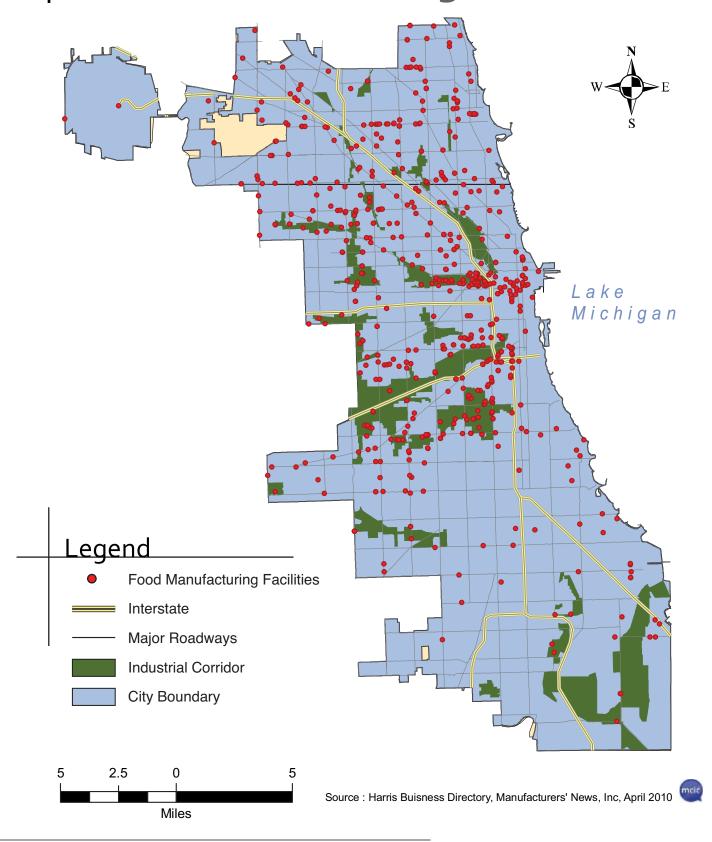
The food sub-sector transforms livestock and agricultural products into products for intermediate or final consumption. The products manufactured by food companies are typically sold to wholesalers or retailers for distribution to consumers. Establishments primarily engaged in bakery and candy products made on the premises are included.



The Chicago cluster appears to be missing out on a growing national trend in specialty foods, while other locations – particularly California – capitalize on it. In fact, California takes the lead in 'preserving of fruits and vegetables and specialty foods,' with 20% of the market, compared to Illinois ranking of 8th and market share of only 3.5%. Moreover, California's share of market divided by share of population is 1.68, compared to only 0.81 in Illinois. That is, California is producing twice as much value in specialty foods per person as compared to Illinois. Given that Chicago is shrinking in most sub-clusters, and that many of these specialty foods can be shipped over longer distances, it is a missed opportunity for growth. . . Among Chicago's strengths in demand conditions, its rich ethnic diversity translates into a wide range of tastes. The important weakness, however, as specialists interviewed point out, is that while Chicago's taste in foods is nationally representative, it is by no means leading, and thus local firms lose out to discovering and profiting from new trends. The predominant example of this has been Chicago's lag in the adoption of premium 'natural' and organic foods relative to the west coast and California in particular.

Michael Porter. The Chicago Processed Food Cluster – The Microeconomics of Competitiveness. Harvard University. May 5, 2006.

# Chicago Food Manufacturing Facilities



#### **Furniture and Related Products**

The furniture sub-sector makes furniture and related articles such as mattresses, window blinds, cabinets and fixtures. Processes include cutting, bending, molding, laminating and assembly of such materials as wood, metal, glass, plastics and rattan. Design and fashion trends play an important part of the production process. Design services may be performed in-house or may be purchased from industrial designers.

#### Leather and Allied Products

Leather and allied products companies transform hides into leather by tanning or curing and fabricating the leather into products for final consumption. It also includes the manufacturing of products made from leather substitutes, such as rubber footwear, textile luggage, and plastic purses and wallets. Leather substitute products are included because they are made in similar ways and within the same establishments.

#### Nonmetallic Minerals

Nonmetallic mineral companies transform mined or quarried nonmetallic minerals like sand, gravel, stone, clay and refractory materials into products for intermediate or final consumption. Processes include grinding, mixing, cutting, shaping and honing. Heat often is used in the process and chemicals are frequently mixed to change the composition, purity and chemical properties for the intended product. For example, glass is produced by heating silica sand to the melting point and then drawn, floated or blow molded to the desired shape or thickness. Refractory materials are heated and then formed into bricks or other shapes for use in industrial applications.

#### **Primary Metals**

The primary metals sub-sector smelts and refines ferrous and nonferrous metals from ore, pig or scrap using electrometallurgical and other process metallurgical techniques. Primary metal companies also manufacture metal alloys and super alloys by introducing other chemical elements to pure metals. The output of smelting and refining, usually in ingot form, is used in rolling, drawing and extruding operations to make sheet, strip, bar, rod or wire to make castings and other basic metal products.

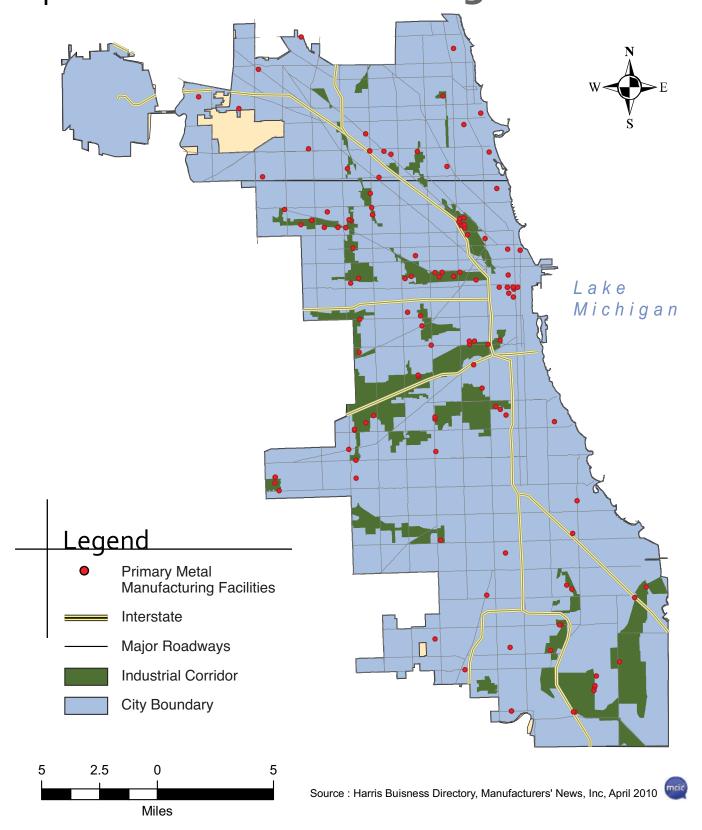






# FACILITIES MAPS:

# Chicago Primary Metal Manufacturing Facilities





#### Paper

The paper sub-sector makes pulp, paper or converted paper products. Though distinct, the three activities often occur within a single establishment. The manufacturing of pulp involves separating the cellulose fibers from other impurities in wood or used paper. The manufacturing of paper involves matting these fibers into a sheet. Converted paper products are made from paper and other materials by various cutting and shaping techniques that include coating and laminating activities.

#### Printing



The printing sub-sector prints products like newspapers, books, labels, business cards, stationery, business forms and other materials. It also performs support activities that are integral to the printing process, such as data imaging, plate making services and bookbinding.

#### **Textiles**

Textile companies transform natural and synthetic fibers into products such as yarn or fabric that is further manufactured into usable items, such as apparel, sheets, towels and textile bags for individual or industrial consumption. The additional manufacturing may be performed in the same establishment and classified in this sub-sector or at a separate establishment and be classified elsewhere in manufacturing.

#### **Textile Products**



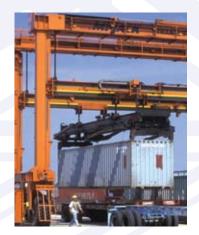
Textile product companies make textile products exclusive of apparel. With a few exceptions, processes used in these industries generally use existing fabric, then cut and sew to make non-apparel textile products such as sheets and towels.

#### **Transportation Equipment**

The transportation equipment sub-sector produces equipment for transporting people and goods. Production processes are similar to other machinery manufacturing establishments and involve bending, forming, welding, machining and assembling metal or plastic parts into components and, more typically, finished products.

#### Wood

Wood companies manufacture wood products such as lumber, plywood, veneers, wood containers, wood flooring, wood trusses, manufactured homes and prefabricated wood buildings. The production processes include sawing, planing, shaping, laminating and assembling starting from logs or lumber. The sub-sector includes establishments that purchase sawed lumber to make finished products.



#### Miscellaneous goods

Miscellaneous goods companies make a wide range of products that cannot readily be classified in specific NAICS manufacturing categories. Processes vary significantly, both among and within industries. For example, a variety of manufacturing processes are used in manufacturing sporting and athletic goods that include products such as tennis racquets and golf balls. The processes for these products differ from each other, and the processes differ significantly from the fabrication processes used in making dolls or toys, the melting and shaping of precious metals to make jewelry and the bending, forming and assembly used in making medical products.



#### Thoughts on Industry

The environmental goods and services industry consists of activities which produce goods and services to measure, prevent, limit, minimize or correct environmental damage to water, air and soil, as well as problems related to waste, noise and eco-systems. This includes cleaner technologies, products and services that reduce environmental risk and minimize pollution and resource use."

Organization for Economic Co-Operation and Development, Statistical Office of the European Communities

The Environmental Goods and Services Industry – Manual for Data Collection and Analysis. 1999

What is the environmental goods and services sector? Green industries have been a fuzzy concept at best . . . Environmental goods and services, after all, are not a traditional category of industry and not widely recognized.

Laurie Kaye. Attracting "Green Industry": An Economic Development Approach for the City of Los Angeles.

UCLA School of Public Affairs. 2006

The rising tide of green—and with it, misrepresentation (greenwashing) — demands third-party standards for defining and certifying industry best practices.

The Delta Redevelopment Institute. Green Economic Development Strategies for the Chicago Region.

June 2009.

#### **Resources:**

#### Industrial Corridors

Chicago's 24 Industrial Corridors, comprising about 12 percent of city land, have boundaries that generally align with railroad embankments, waterways, highways, arterial streets and other manmade and natural buffers that effectively separate interior industrial uses from adjacent residential and commercial activity. Ranging in size from 70 to 3,500 acres, the corridors are essential parts of the region's sustainable infrastructure because they offer existing industrial land for new and expanded manufacturing development projects. Unlike suburban and rural development locations that have traditionally served the region as farmland, the corridors have been associated with industry, in some cases, for more than 150 years. It was only in the 1990s, recognizing their importance to the city's economy, that the City of Chicago designated them as "Industrial Corridors" in order to provide protection and incentives for industrial companies. Their continued use for the production of durable and nondurable goods underscores fundamental sustainability principles involving the utilization of existing resources.

Though well established, portions of many corridors are vulnerable to redevelopment and reuse for residential and retail uses. To help protect land within the corridors, zoning change proposals within their borders are reviewed by the Chicago Plan Commission, which can reject proposals that would cause conflicts with existing businesses or serve to weaken a corridor's industrial integrity. Additional land use protection is provided by Planned Manufacturing District (PMD) legislation, which specifically prohibits residential and large scale retail development within a district. Fifteen PMDs have been designated in 12 of the corridors.

In addition to stable work environments, each of the corridors possesses numerous transportation assets. Most offer direct connections to the interstate highway system and provide access for 80,000-pound trucks roughly every mile. Additionally, four corridors are used by local companies to ship and receive goods by rail and 13 others have potential for increased rail use. Five corridors also offer regional or inter-modal water access to either the Chicago or Calumet River.

However, as part of the first phase of CSI analyses, it is clear that manufacturers find areas outside the industrial corridors suitable as well. The three maps in the previous section on the manufacturing sub-sectors show fabricated metal, food and primary metal manufacturing facilities all over the city.

Recent studies and ongoing work by city agencies will help CSI to assess the continued viability of various types of industrial uses. A land use inventory and analysis completed in 2010 by the Chicago Department of Housing and Economic Development (HED) was conducted for the first phase of the CSI initiative. Presented on the following pages, the data and associated ratings are collectively intended to provide a broad analysis of the comparative strengths of each corridor.



While the analysis of any given site within each corridor should entail additional components, the rationale behind the economic, transportation and boundary ratings for each corridor are as follows:

#### **Economic Strength**

Ratings are based on corridor specialization, vacancies, employment and employment density. Specialization involves the clustering of certain types of businesses within a corridor, which provides critical mass benefits for their collective viability. Vacancies are assessed for redevelopment potential that may involve environmental remediation and adaptability for one or more modern industrial uses. With certain exceptions, multi-floor properties are generally not considered conducive for modern manufacturing needs but may be adaptable for other employment generating uses. See maps for sales and employee totals for each corridor.

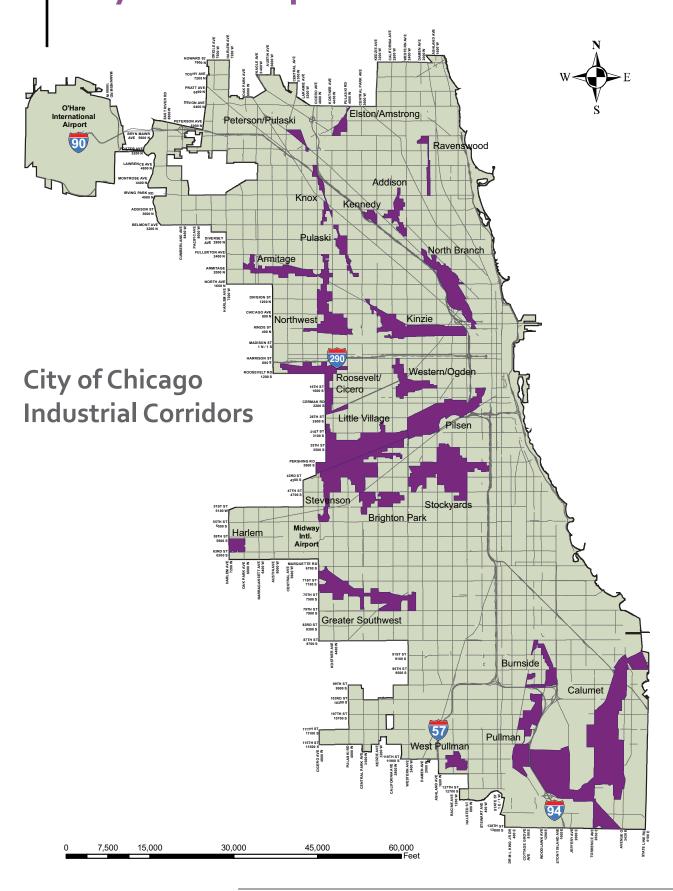
#### **Transportation Access**

Ratings are based on road, water and rail linkages within each corridor. With highway access being the most desirable component, specific access issues involve highway entry points, viaduct heights and truck routes, in that order. Access is also an important criteria involving workers' ability to commute to and from an employment location. However, corridors that do not rate well on the above criteria may still be valuable to companies due to their proximity to customers. How these factors are ultimately weighed depend on a specific company's needs and the availability of appropriate sites within a given corridor.

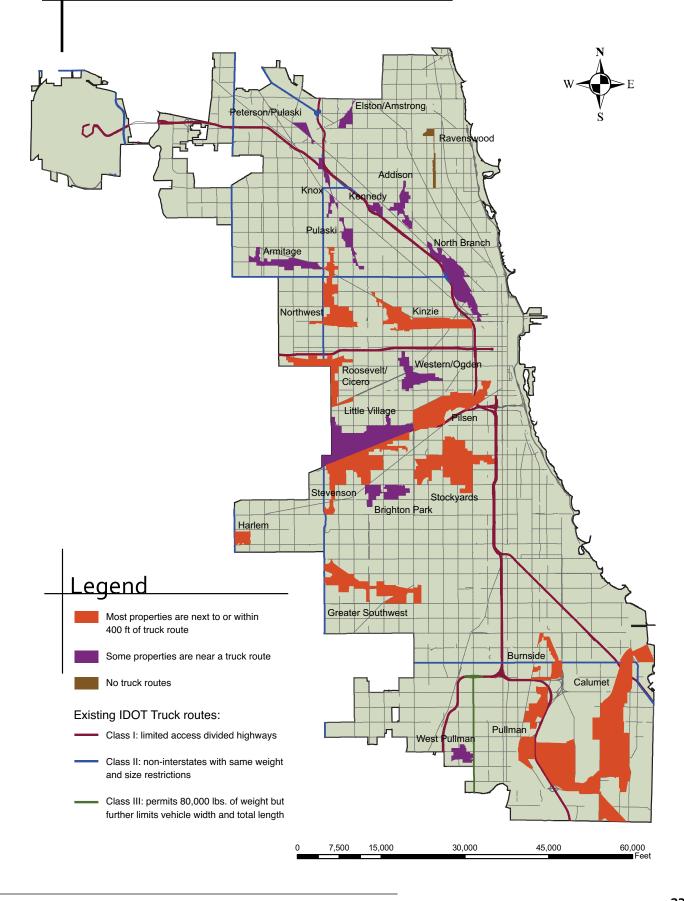
#### Zoning and Boundary Integrity

Ratings are based on the effectiveness of corridor boundaries at mitigating the spread of noise, fumes and traffic to areas outside the corridor. Wide boundaries, like expressways and rivers, and elevated boundaries, such as railroad embankments, are highly effective. Retail strip centers, large-format retail stores and other non-residential uses can also function as buffers with nearby residential areas, though, ideally such business are not located within an industrial corridor. Rezonings in support of retail and residential operations reduce the amount of land available for new and expanding industries.

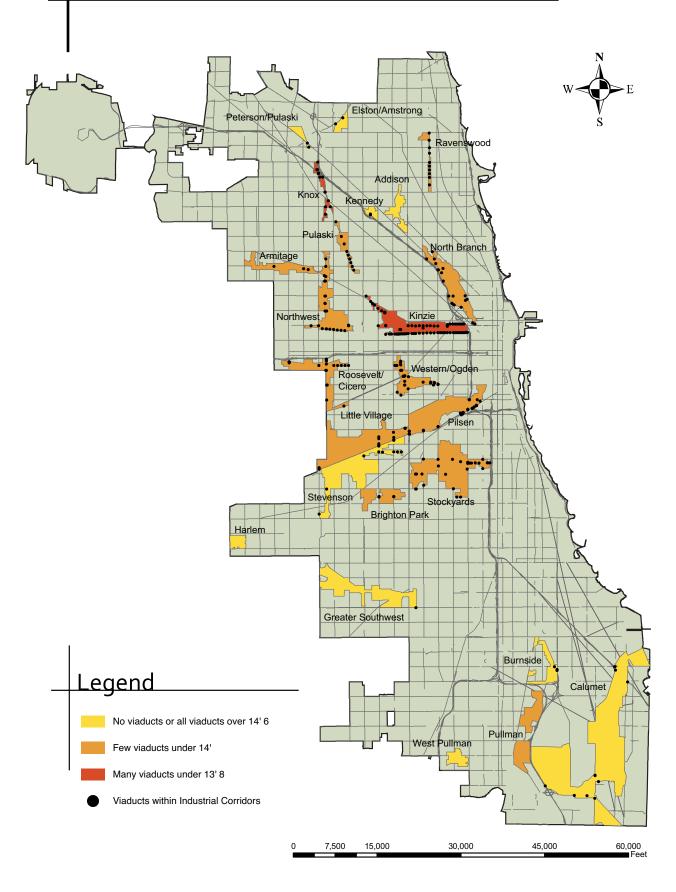
# **Citywide Maps:**



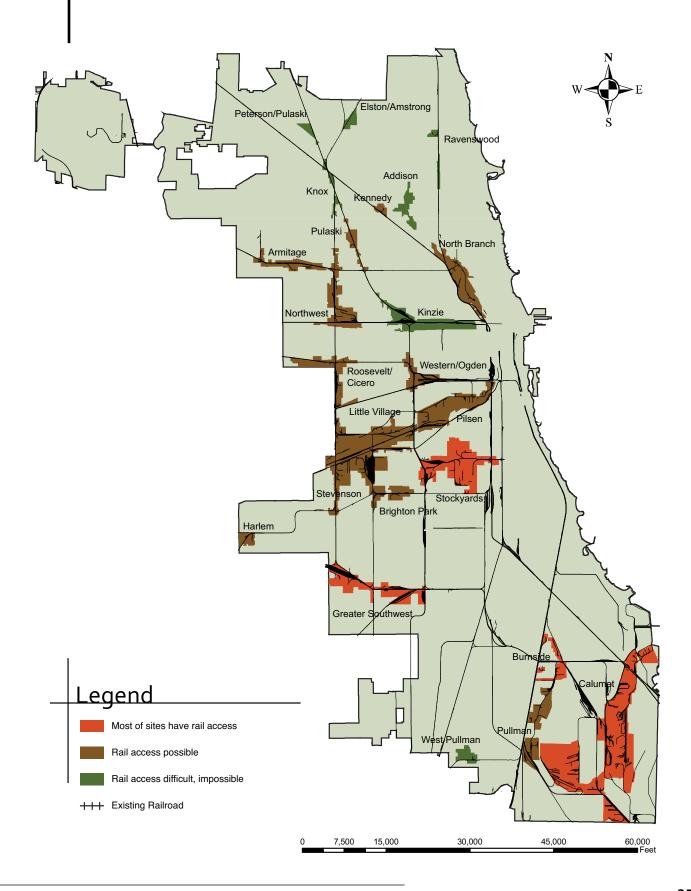
### **Truck Route Access:**



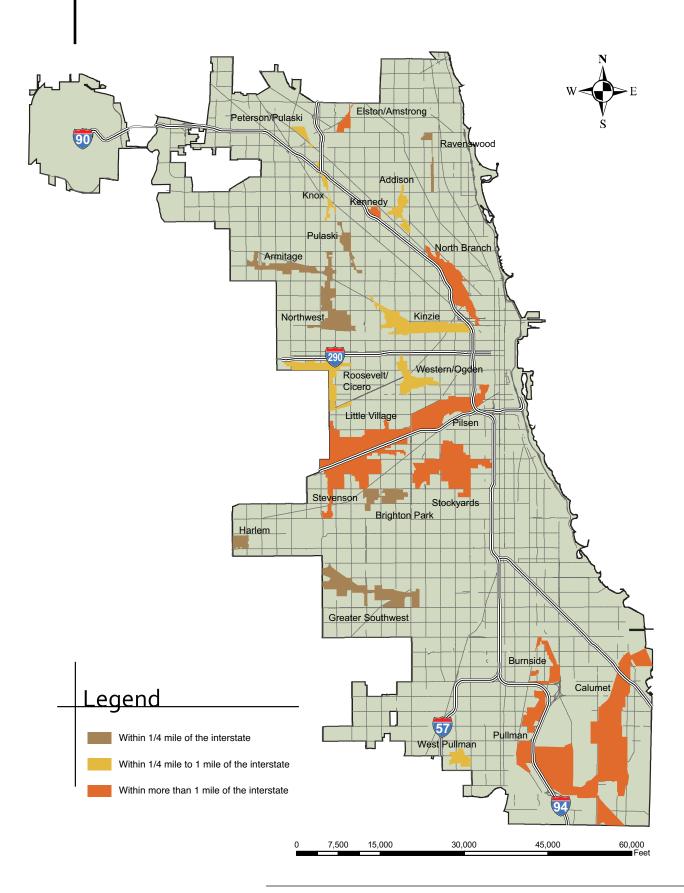
# Viaduct Clearance Issues:



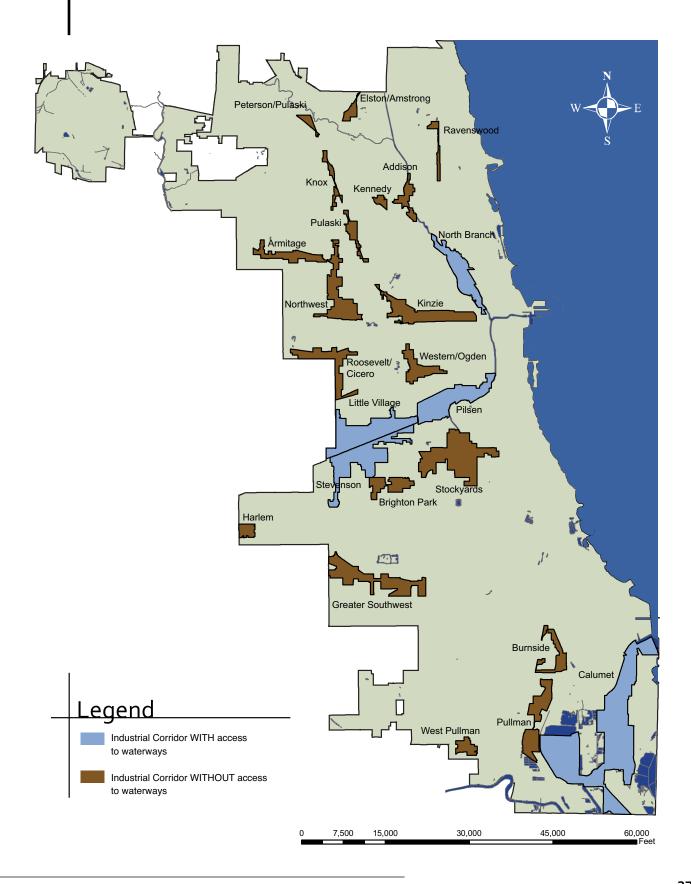
## Railroad Access:



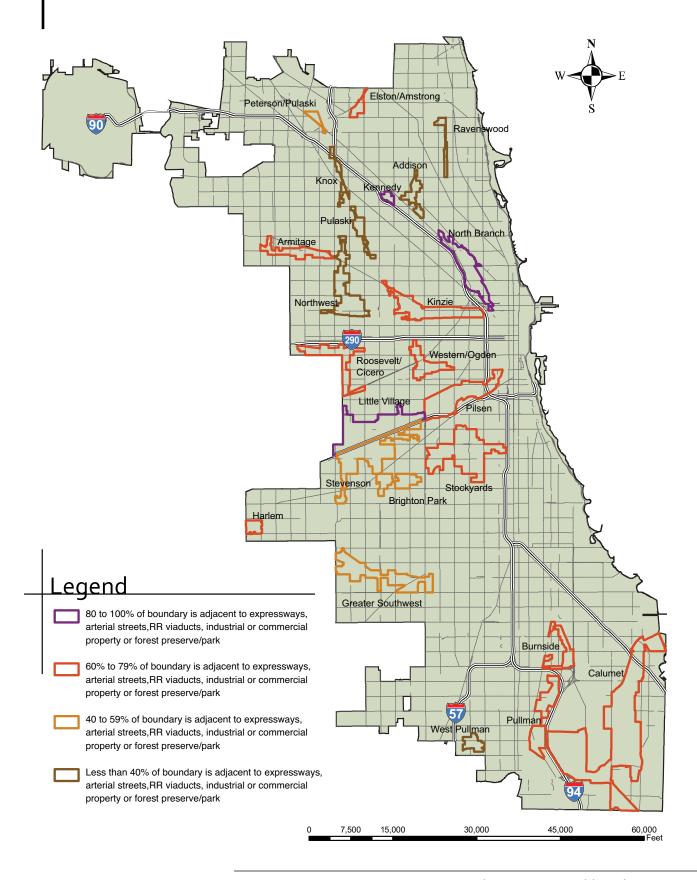
#### **Interstate Access:**



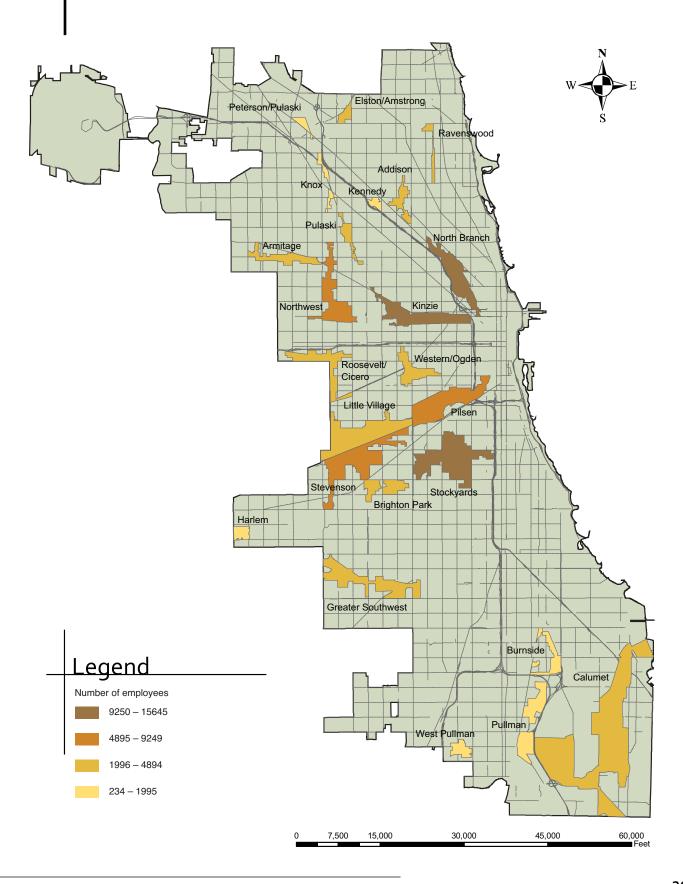
# **Waterways Access:**



# **Boundary Integrity:**



# **Employment:**



## **Zoning Code Matrix**

District	Maria	Mari	Nd:	NA <sup>1</sup>	C' de	Turbullusus
District Name	Max FAR	Max Height	Min Front Yard	Min Rear Yard*	Side Yards*	Typical Uses
RS1	0.50	30	20	50	5	Single Family Detached
RS <sub>2</sub>	0.65	30	20	50	4	Single Family Detached
RS <sub>3</sub>	0.90	30	20	50	2	SFD+ Two Flats
RT3.5	1.05	35	15	50	2	SFD+ 2/3 Flats + TownHomes
RT4	1.20	38	15	50	2	Flats + Townhomes + Multifamily
RT4A	1.50	42	15	50	2	Flats + Townhomes + Multifamily
RM4.5	1.70	47	15	50	2	Townhomes + Multifamily
RM <sub>5</sub>	2.00	47	15	50	2	Townhomes + Multifamily
RM5.5	2.50	60	15	50	2	Multifamily
RM6	4.40	none	15	50	none	Multifamily
RM6.5	6.60	none	15	50	none	Multifamily
B1-1	1.20	38	0	0	0	Storefront style shopping, upper story residential/office
B1-1.5	1.50	38	0	0	0	Storefront style shopping, upper story residential/office
B1-2	2.20	50	0	0	0	Storefront style shopping, upper story residential/office
B1-3	3.00	65	0	0	0	Storefront style shopping, upper story residential/office
B1-5	5.00	80	0	0	0	Storefront style shopping, upper story residential/office
B2-1	1.20	38	0	0	0	As B1 but ground floor residential allowed
B2-1.5	1.50	38	0	0	0	As B1 but ground floor residential allowed
B2-2	2.20	50	0	0	0	As B1 but ground floor residential allowed
B2-3	3.00	65	0	0	0	As B1 but ground floor residential allowed
B2-5	5.00	80	0	0	0	As B1 but ground floor residential allowed
B3-1	1.20	38	0	0	0	Auto oriented retail, upper story residential/office
B3-1.5	1.50	38	0	0	0	Auto oriented retail, upper story residential/office
B3-2	2.20	50	0	0	0	Auto oriented retail, upper story residential/office
B <sub>3</sub> - <sub>3</sub>	3.00	65	0	0	0	Auto oriented retail, upper story residential/office
B <sub>3</sub> -5	5.00	80	0	0	0	Auto oriented retail, upper story residential/office
C1-1	1.20	38	0	0	0	B1+ auto-oriented uses and bars allowed by right
C1-1.5	1.50	38	0	0	0	B1+ auto-oriented uses and bars allowed by right
C1-2	2.20	50	0	0	0	B1+ auto-oriented uses and bars allowed by right
C1-3	3.00	65	0	0	0	B1+ auto-oriented uses and bars allowed by right
C1-5	5.00	80	0	0	0	B1+ auto-oriented uses and bars allowed by right
C2-1	1.20	38	0	0	0	Motor vehicle related commercial district
C2-1.5	1.50	38	0	0	0	Motor vehicle related commercial district
C2-2	2.20	50	0	0	0	Motor vehicle related commercial district
C2-3	3.00	65	0	0	0	Motor vehicle related commercial district
C2-5	5.00	80	0	0	0	Motor vehicle related commercial district
C3-1	1.20	38	0	0	0	Commercial, manufacturing uses, no residential
C3-1.5	1.50	38	0	0	0	Commercial, manufacturing uses, no residential
C3-2	2.20	50	0	0	0	Commercial, manufacturing uses, no residential
C <sub>3</sub> -3	3.00	65	0	0	0	Commercial, manufacturing uses, no residential
C <sub>3</sub> -5	5.00	80	0	0	0	Commercial, manufacturing uses, no residential
M1-1	1.20	none	0	0	0	Low impact manufacturing, wholesaling and warehousing
M1-2	2.20	none	0	0	0	Low impact manufacturing, wholesaling and warehousing
M1-3	3.00	none	0	0	0	Low impact manufacturing, wholesaling and warehousing
M2-1	1.20	none	0	0	0	Moderate Impact manufactuing, wholesaling and warehousing
M2-2	2.20	none	0	0	0	Moderate Impact manufactuing, wholesaling and warehousing
M2-3	3.00	none	0	0	0	Moderate Impact manufactuing, wholesaling and warehousing
M3-1	1.20	none	0	0	0	High impact manufacturing + waste related uses
M3-2	2.20	none	0	0	0	High impact manufacturing + waste related uses
M <sub>3</sub> - <sub>3</sub>	3.00	none	0	0	0	High impact manufacturing + waste related uses

# industrial corridors

The following pages provide the existing Land Use and Zoning map of each of the 24 industrial corridors along with additional information. For land surrounding the corridors, the zoning district name is provided to illustrate the context in which each industrial corridor is situated. The Zoning Codes Matrix table (left) includes details on each of those zoning district names.



Legend

LAND USE

ZONING Manufacturing ZZZ PMDs

Residential Mixed-use PDs Public Open Space Institutional

Industrial Corridor === Railroad Tracks

CTA Station METRA Station --- City Boundary

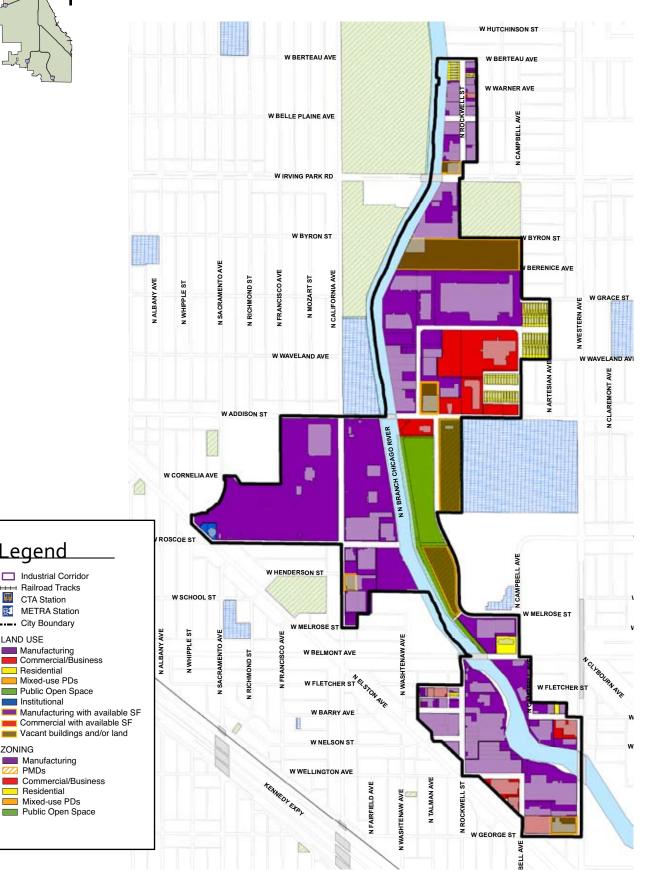
Manufacturing
Commercial/Business

Commercial/Business
Residential

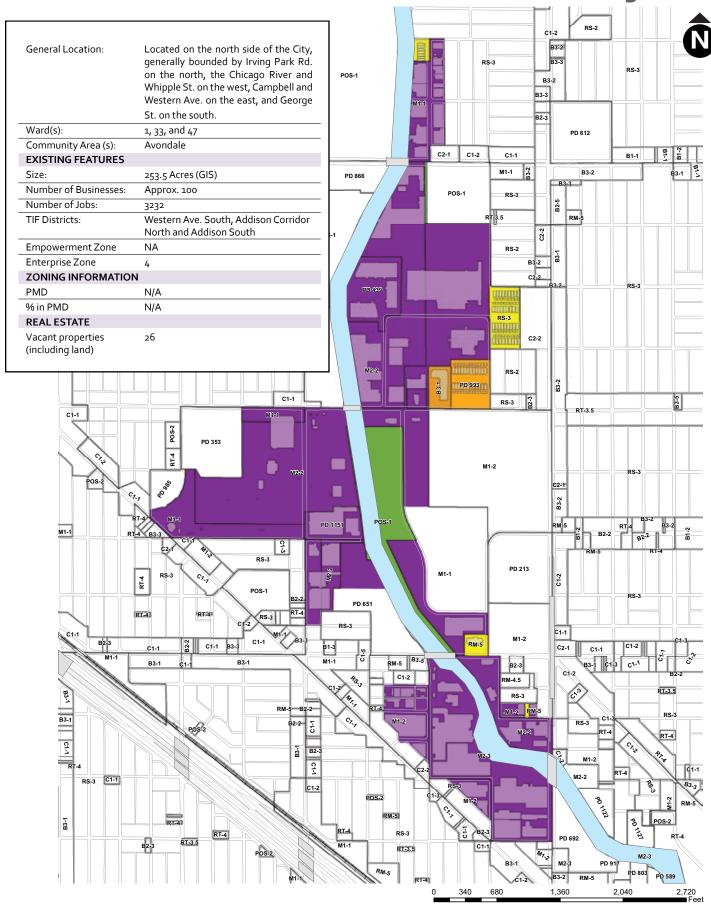
Mixed-use PDs Public Open Space

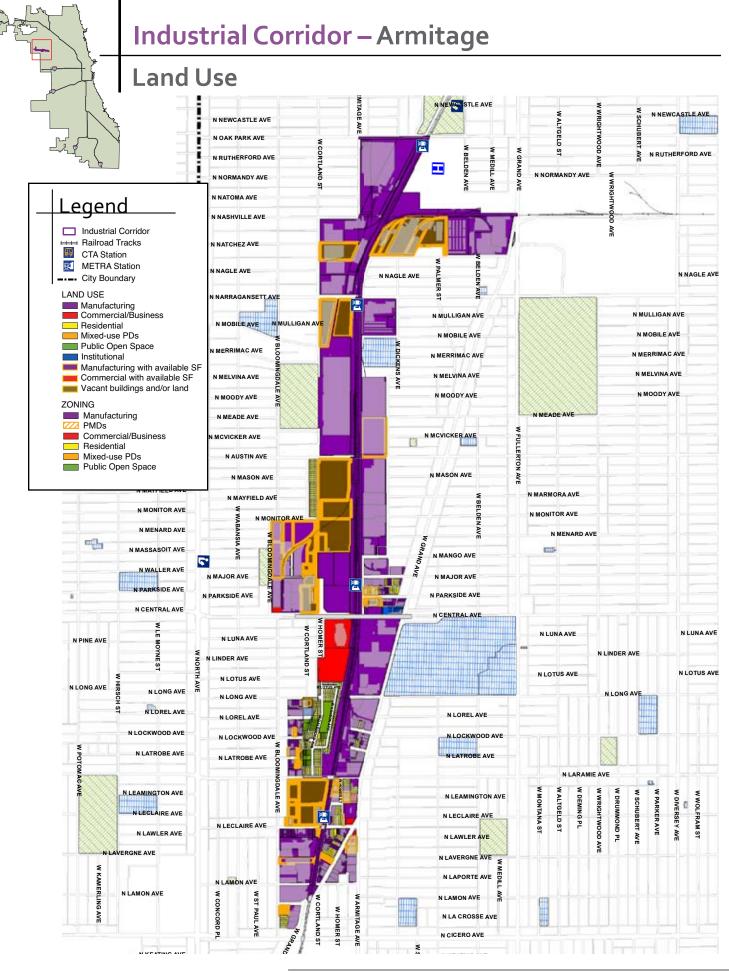
#### Industrial Corridor – Addison

#### **Land Use**

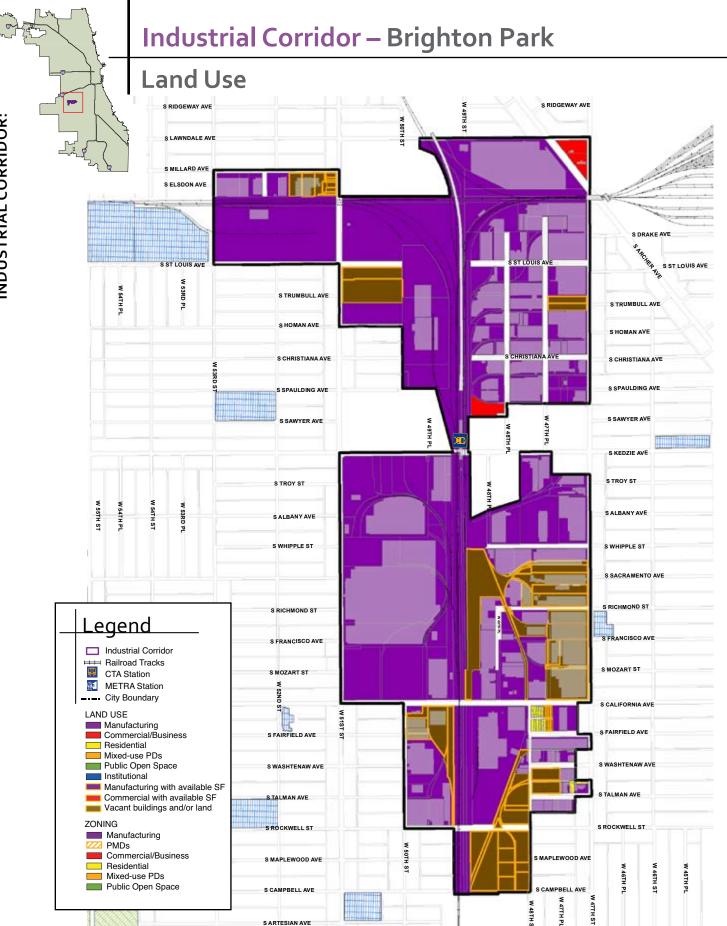


#### **Existing Zoning**

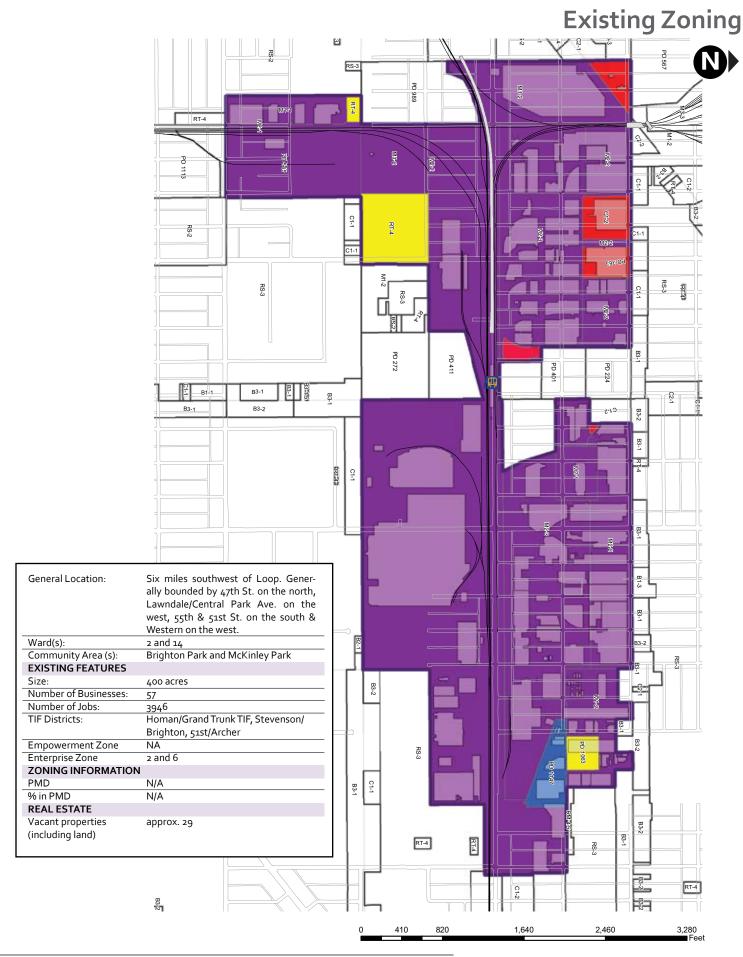






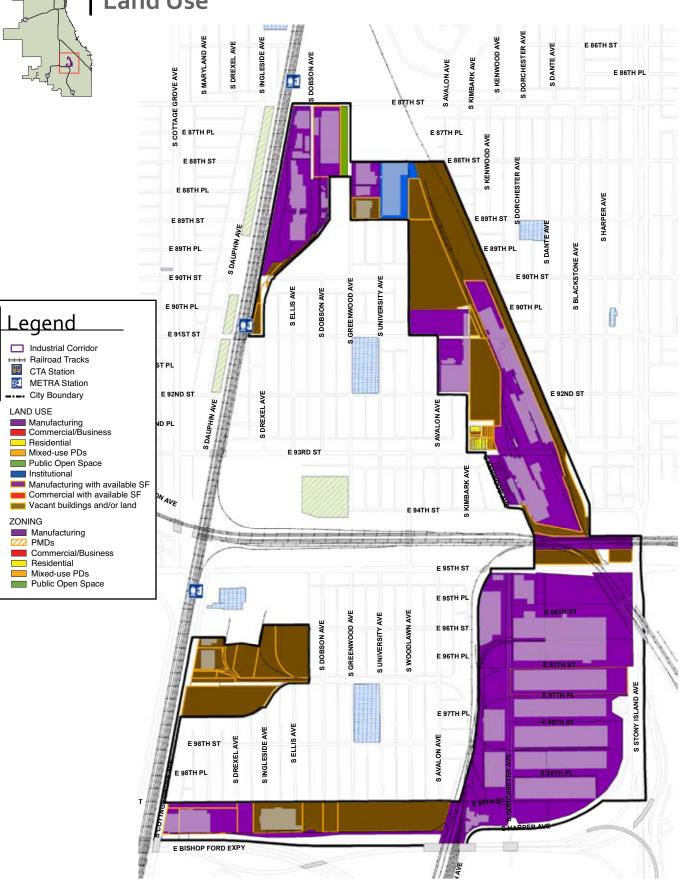


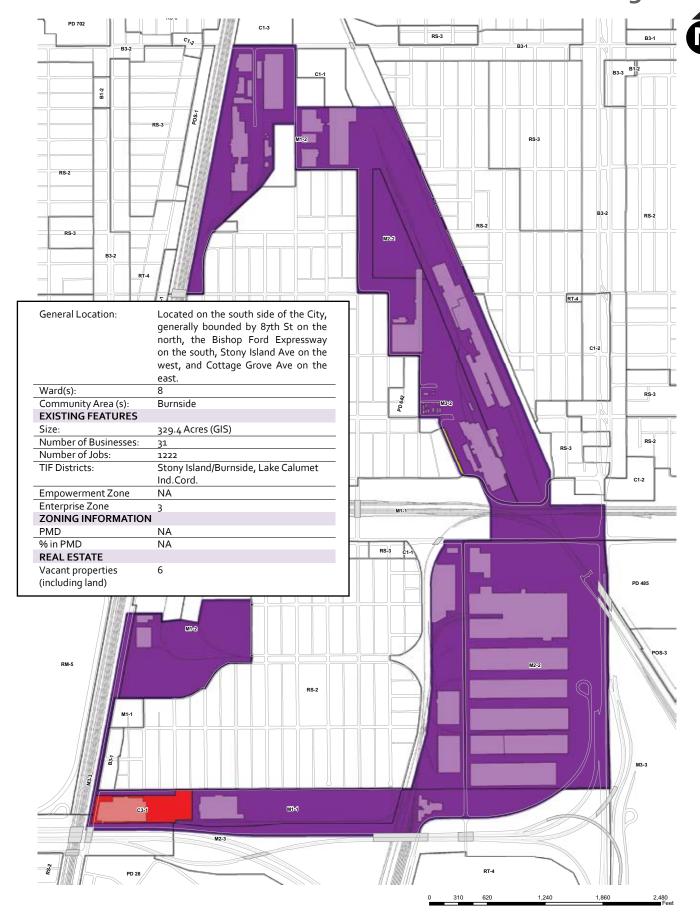
S ARTESIAN AVE



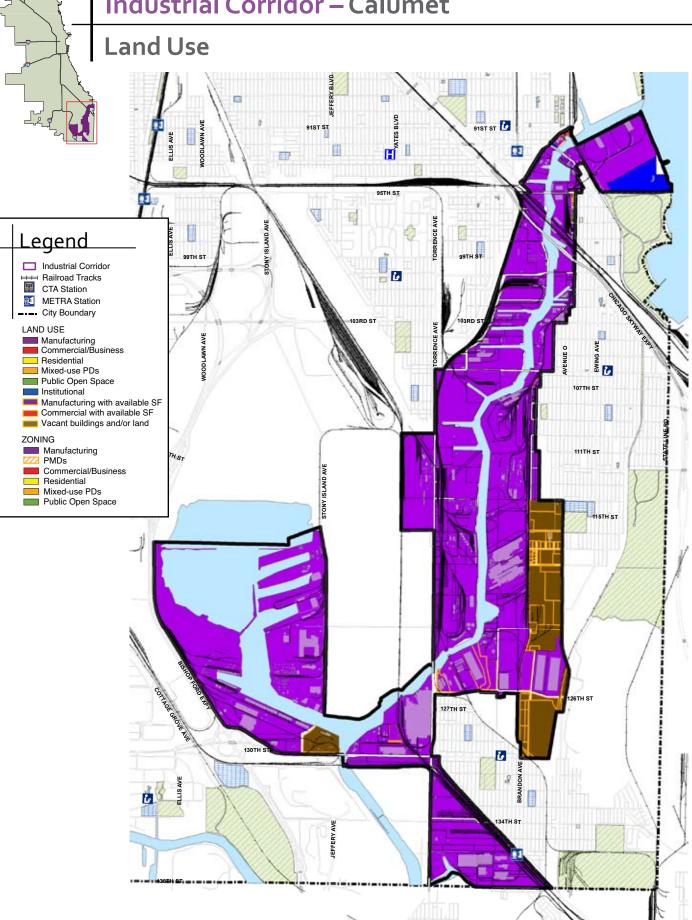
#### Industrial Corridor – Burnside

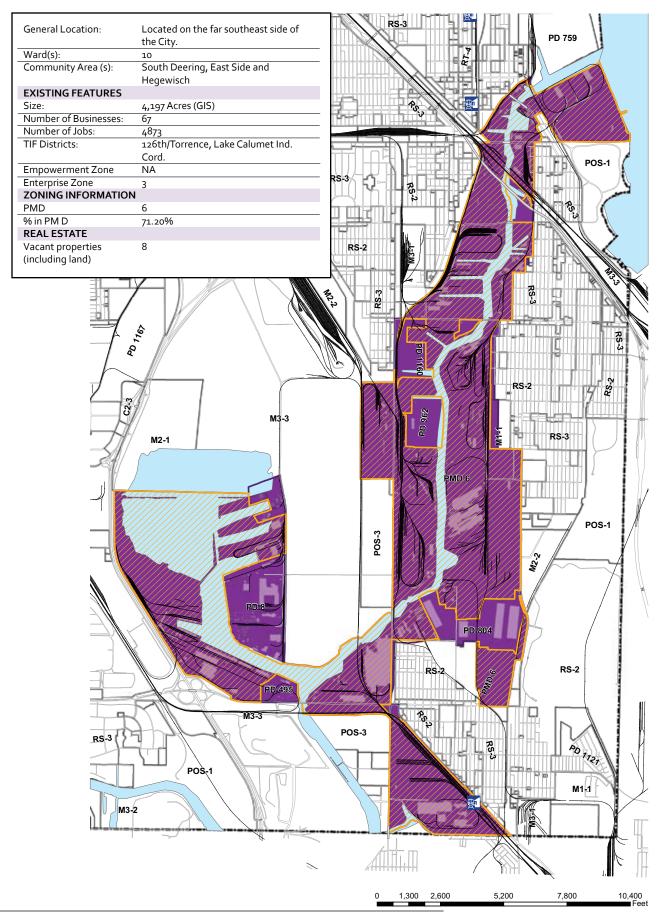
#### **Land Use**

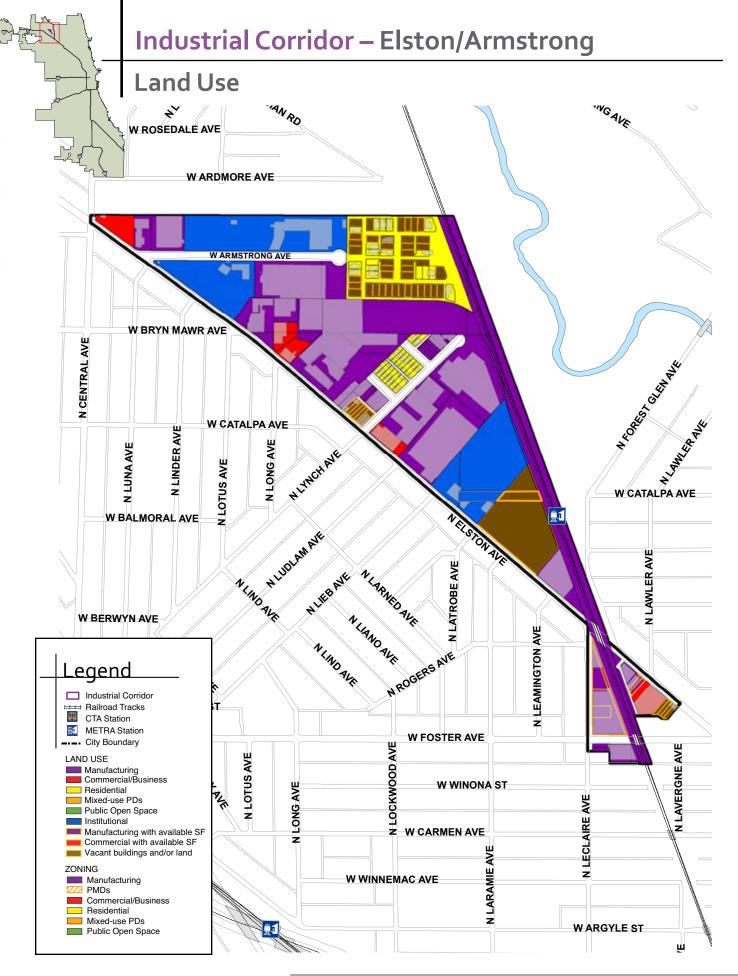


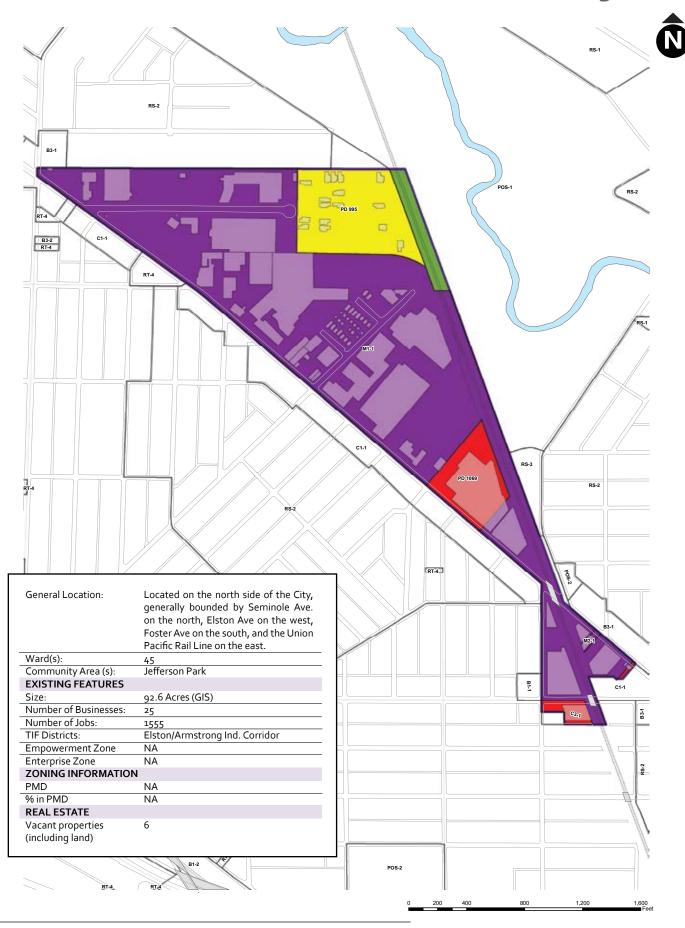


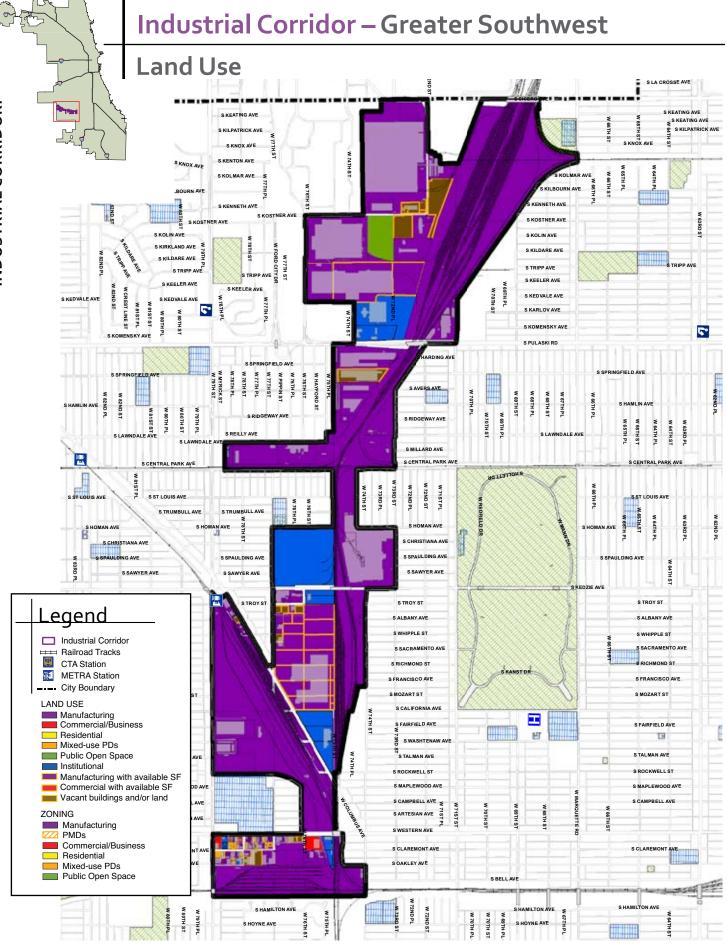
### Industrial Corridor – Calumet

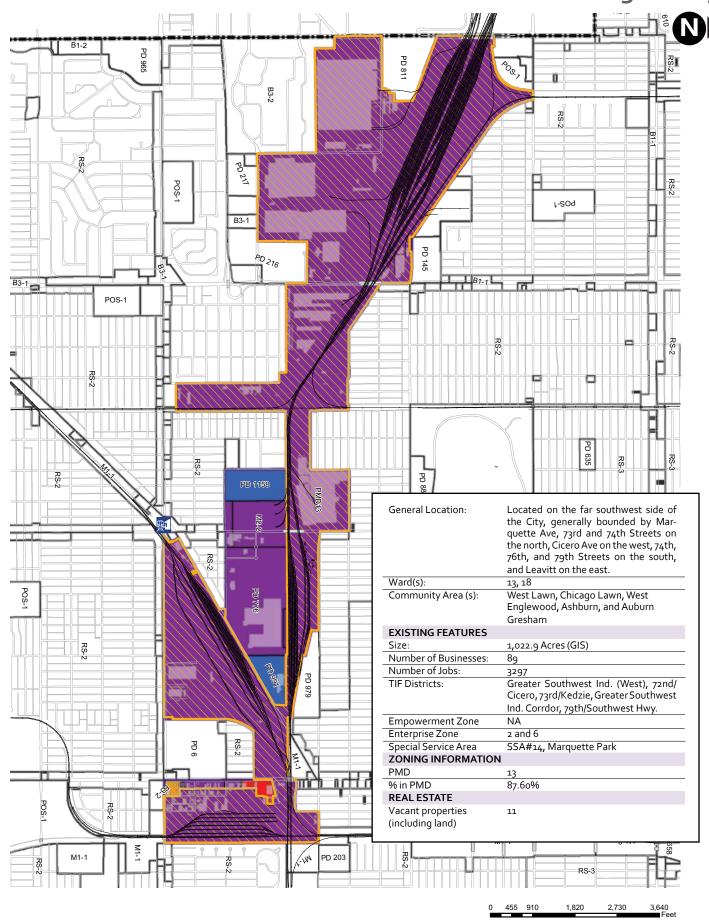








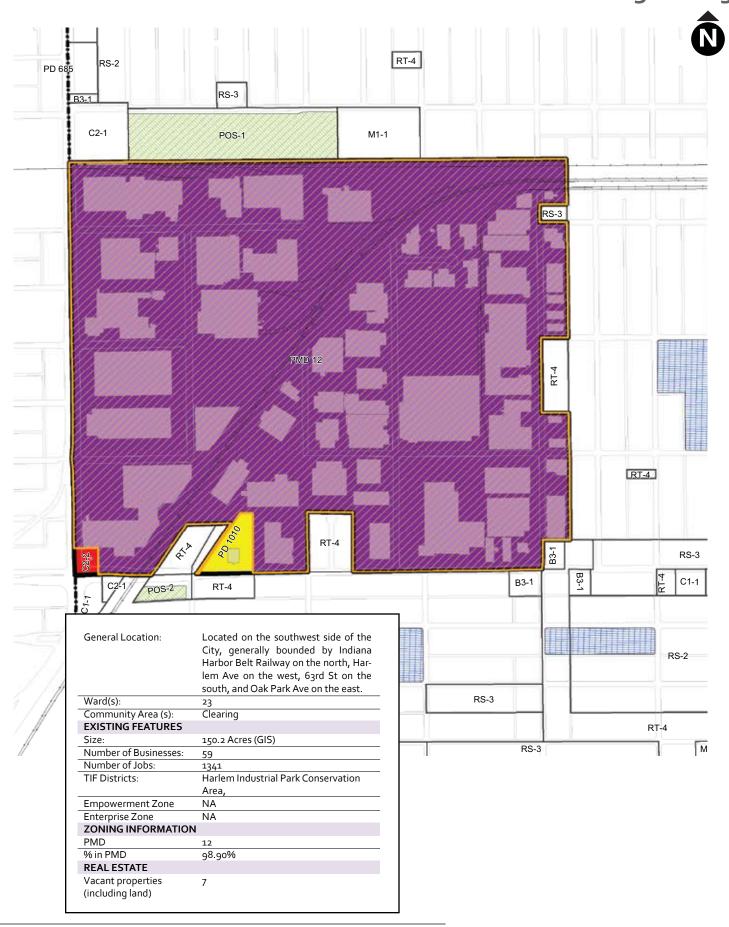


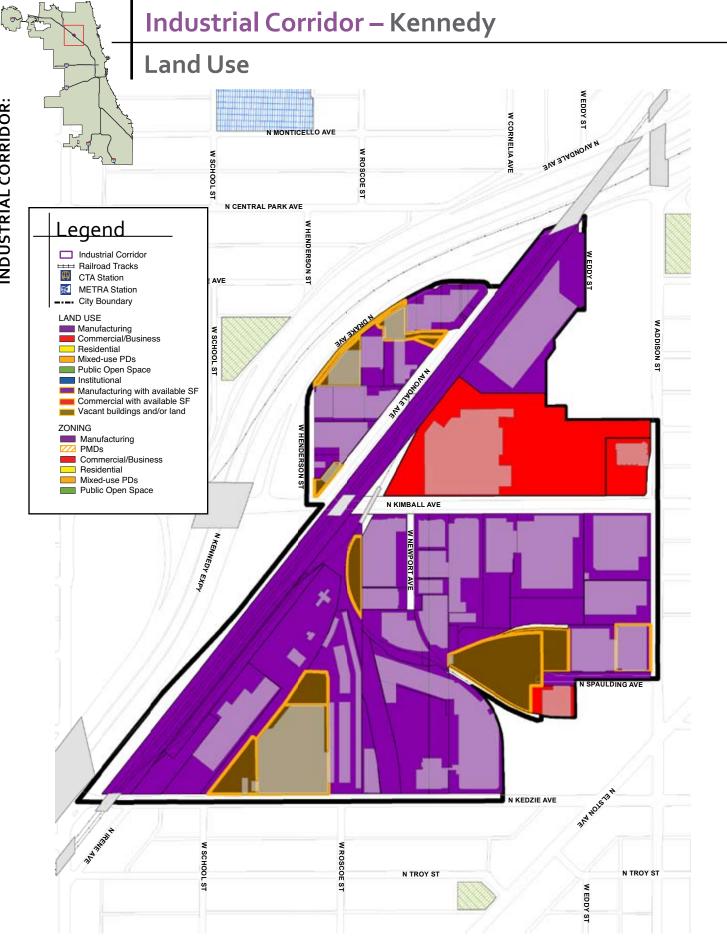


# **Industrial Corridor – Harlem**

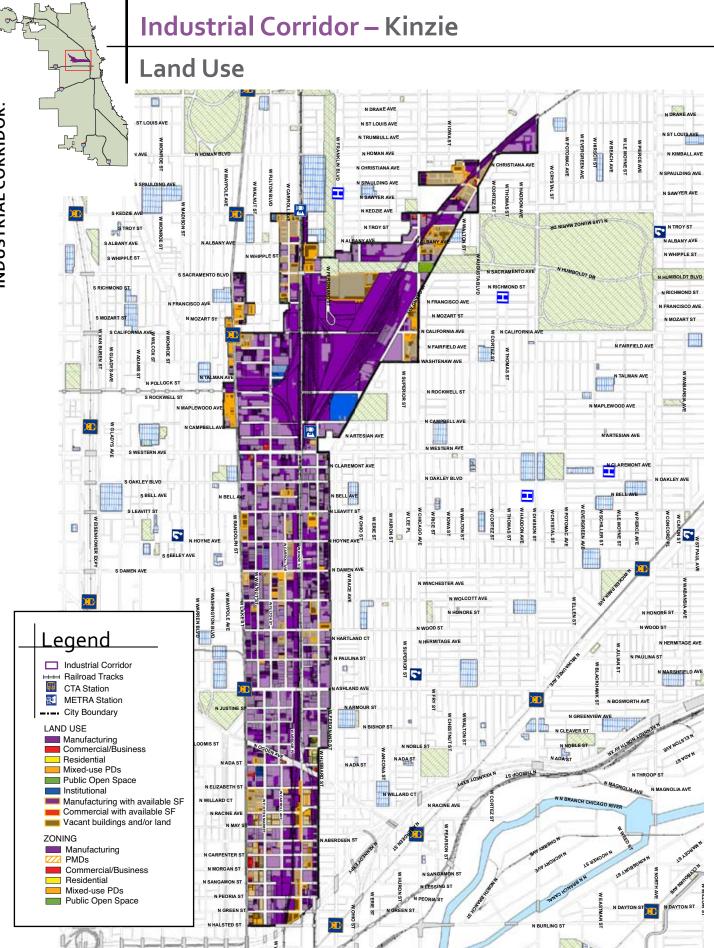
Land Use

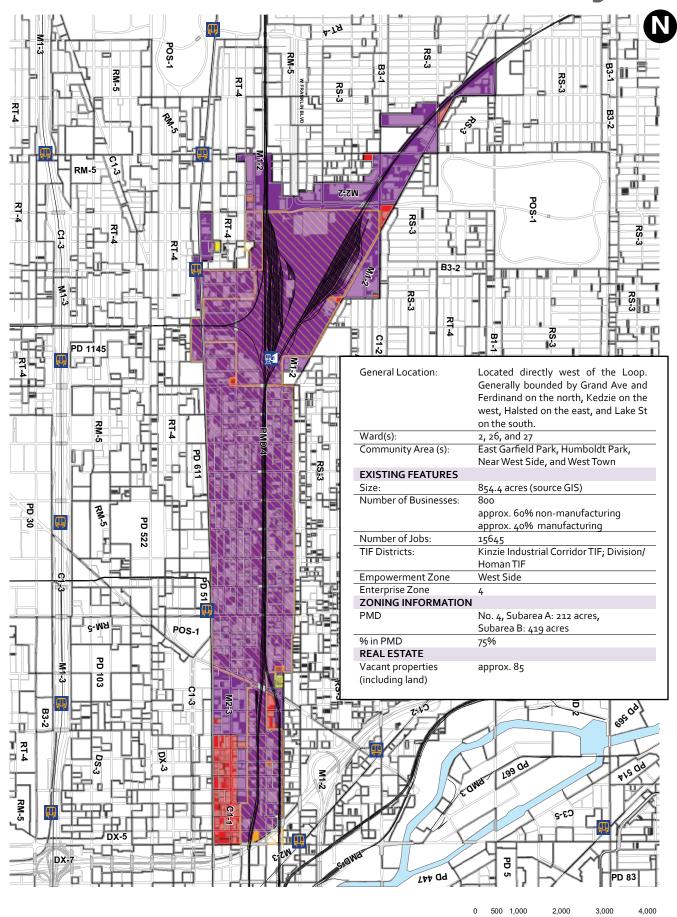


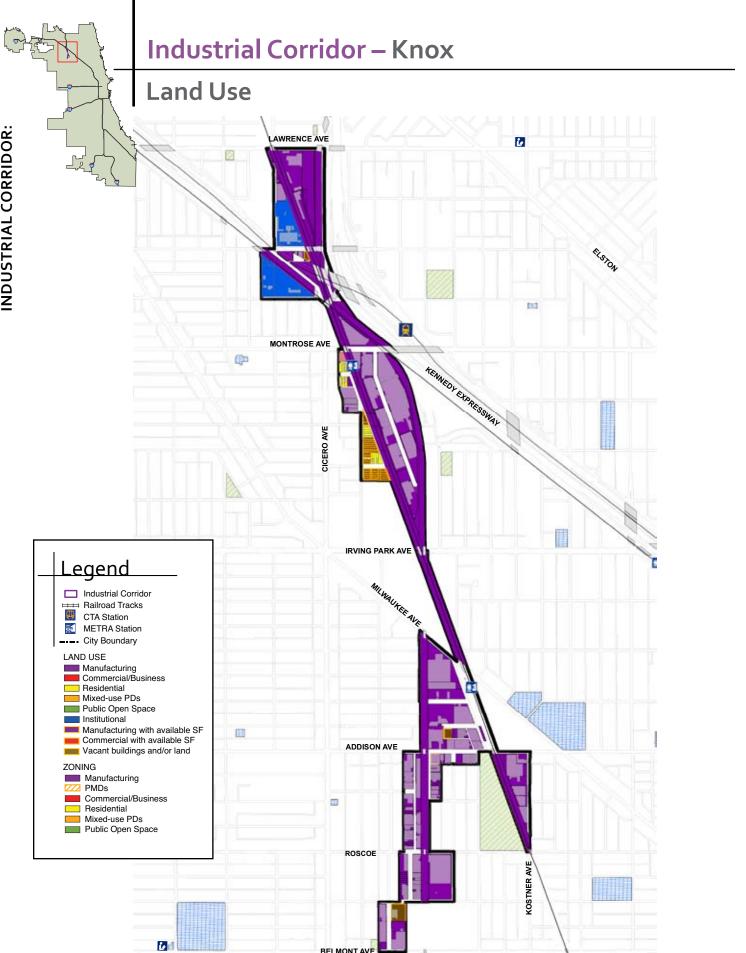


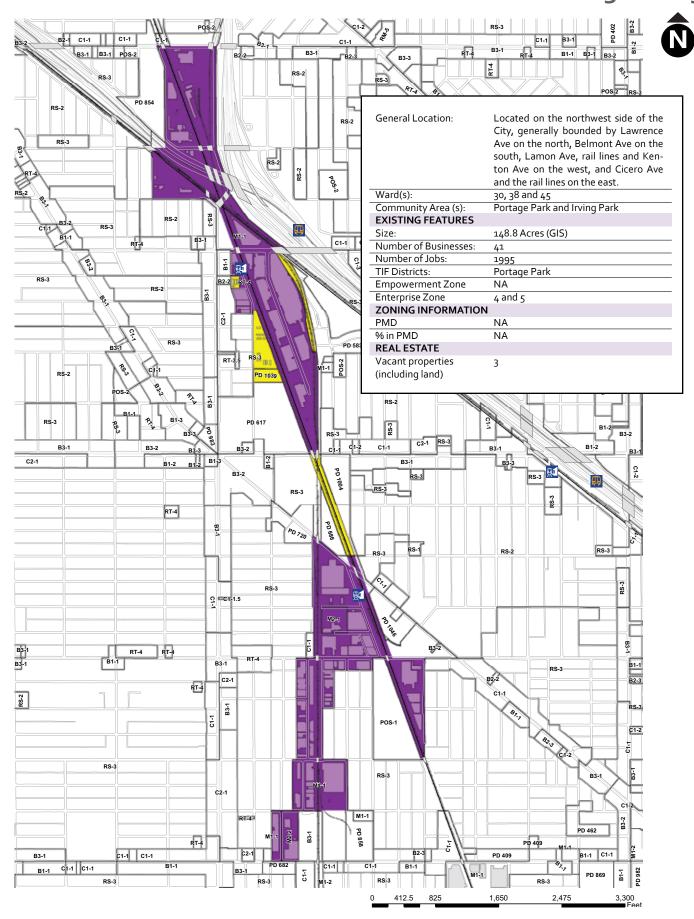


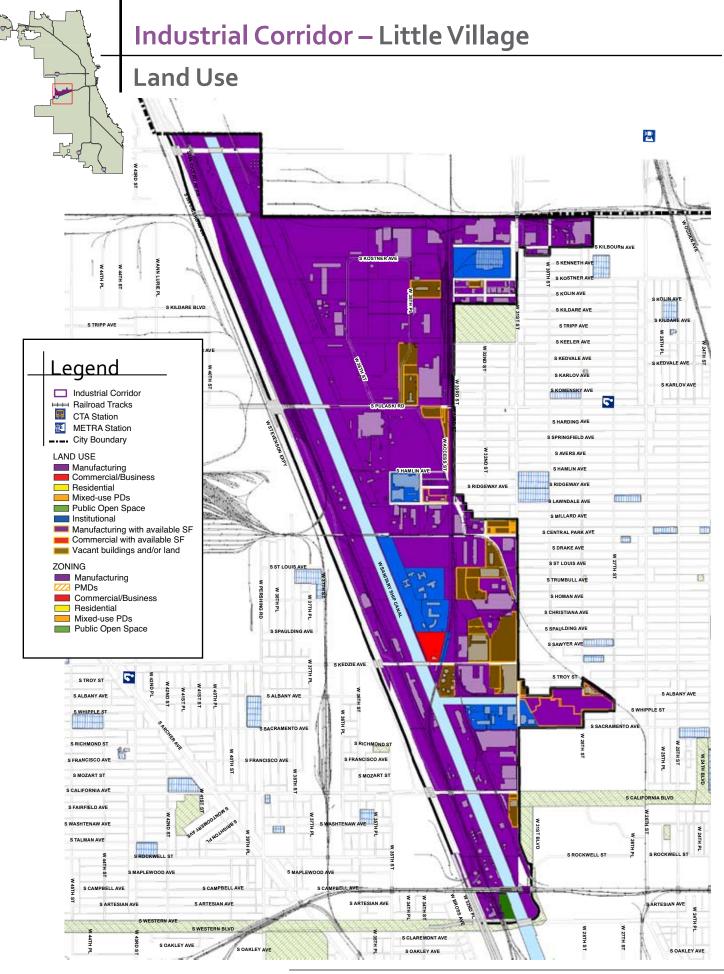




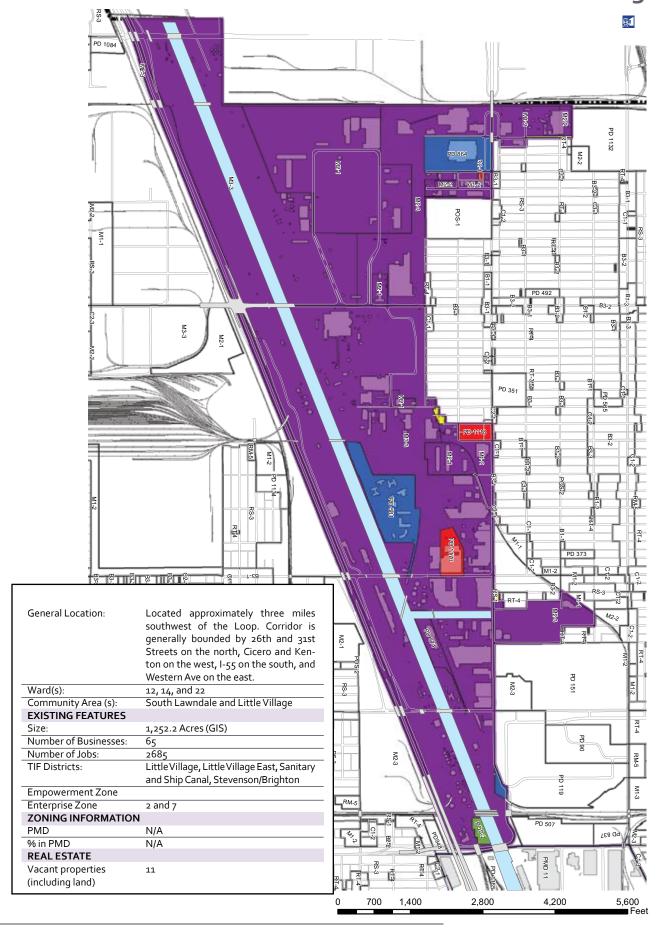


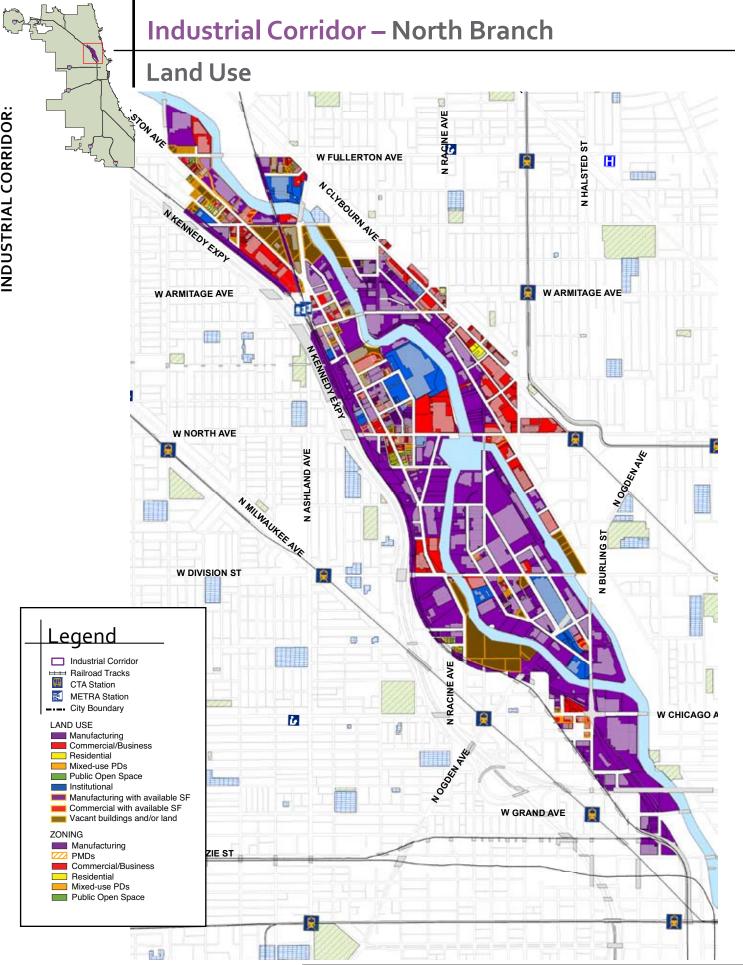




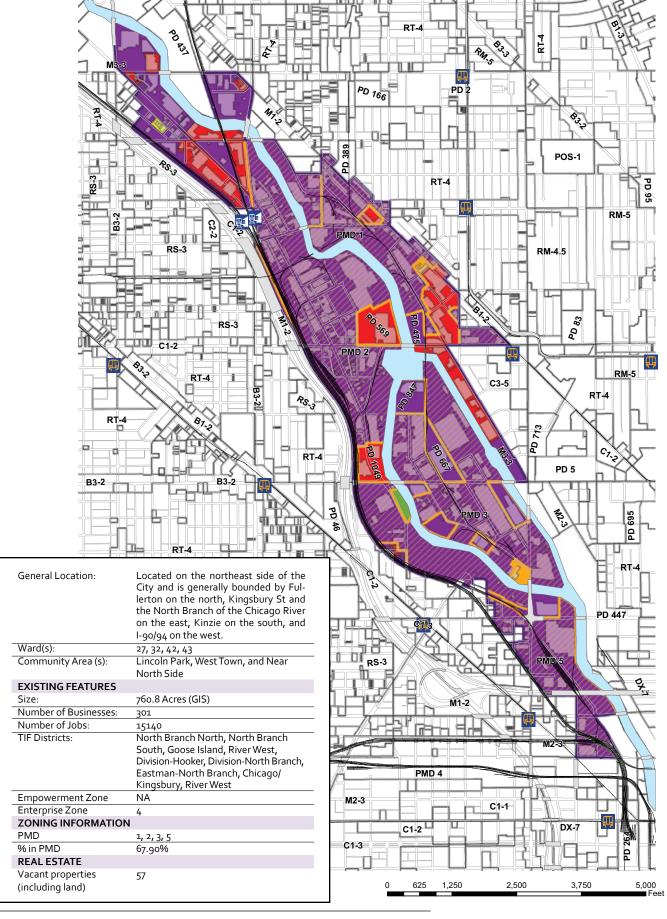


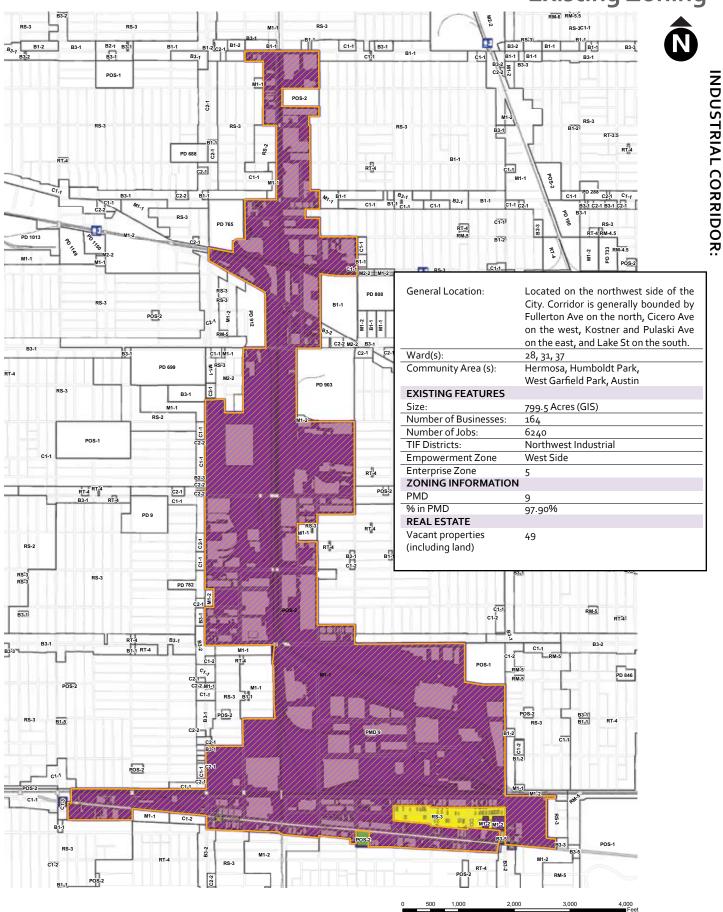








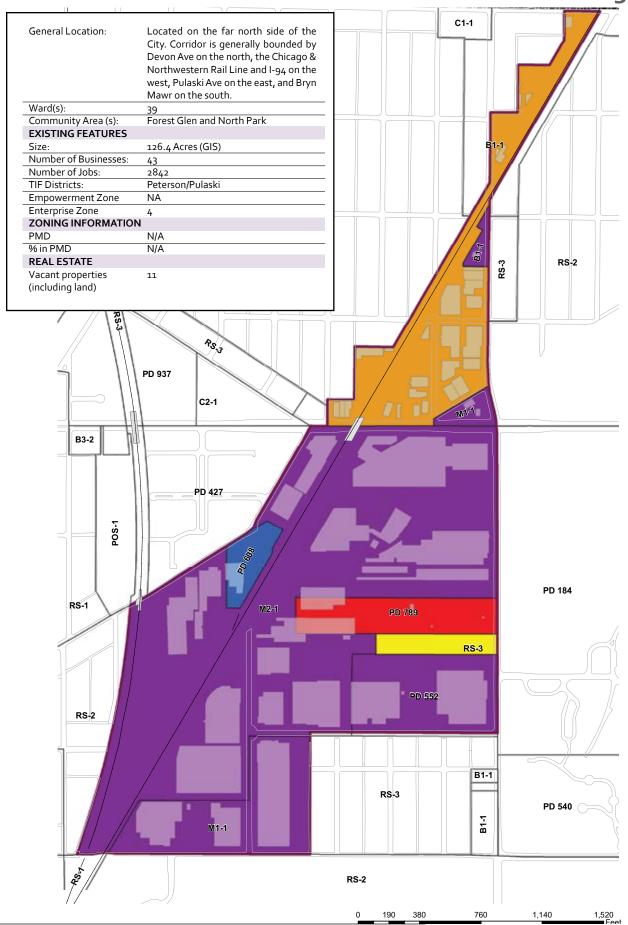


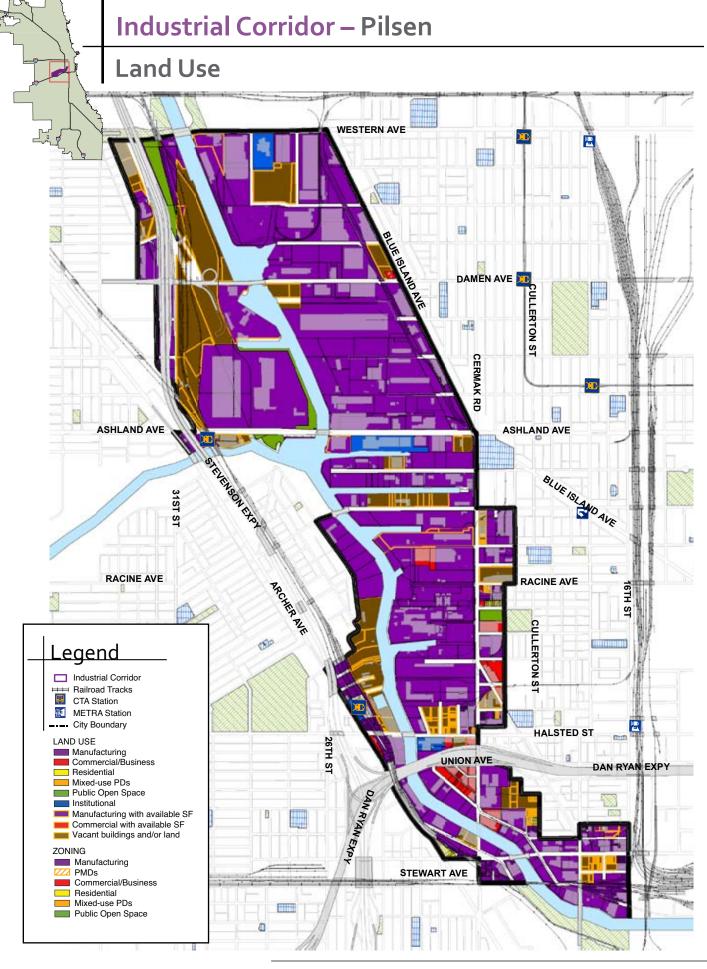


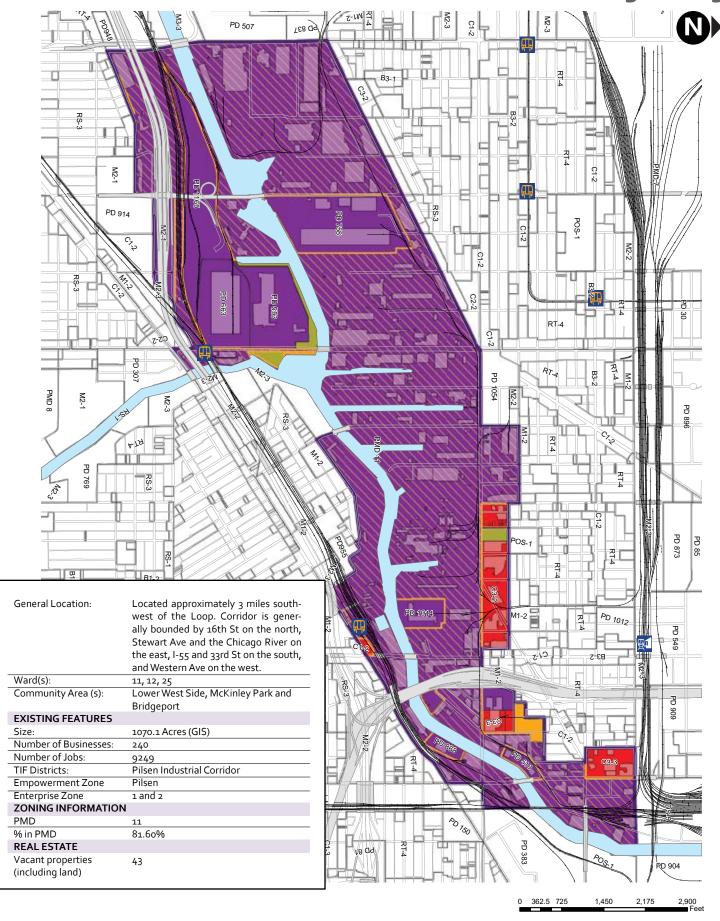
#### **Industrial Corridor – Peterson Land Use** W DEVON AVE INDUSTRIAL CORRIDOR: N PULASKI RD N KOSTNER AVE N SPRINGFIELD AVE N LOWELL AVE N KEYSTONE AVE W ROSEMONT AVE N KILDARE AVE N HARDING AVE N KARLOV AVE N TRIPP AVE N KEELER AVE N KEDVALE AVE W GRANVILLE AVE <u>egend</u> Railroad Tracks Industrial Corridor W GLENLAKE AVE N ROGERS AVE N SAUGANASH AVE METRA Station ..... City Boundary LAND USE Manufacturing Commercial/Business Residential Mixed-use PDs W PETERSON AVE Public Open Space Institutional Manufacturing with available SF W HARRINGTON LN Commercial with available SF Vacant buildings and/or land ZONING W THORNDALE AVE Manufacturing PMDs Commercial/Business Residential Mixed-use PDs Public Open Space N LOWELL AVE W ARDMORE AVE W VICTORIA ST W HOLLYWOOD AVE N KEDVALE AVE N KEYSTONE AVE KARLOV AVE

W BRYN MAWR ATE

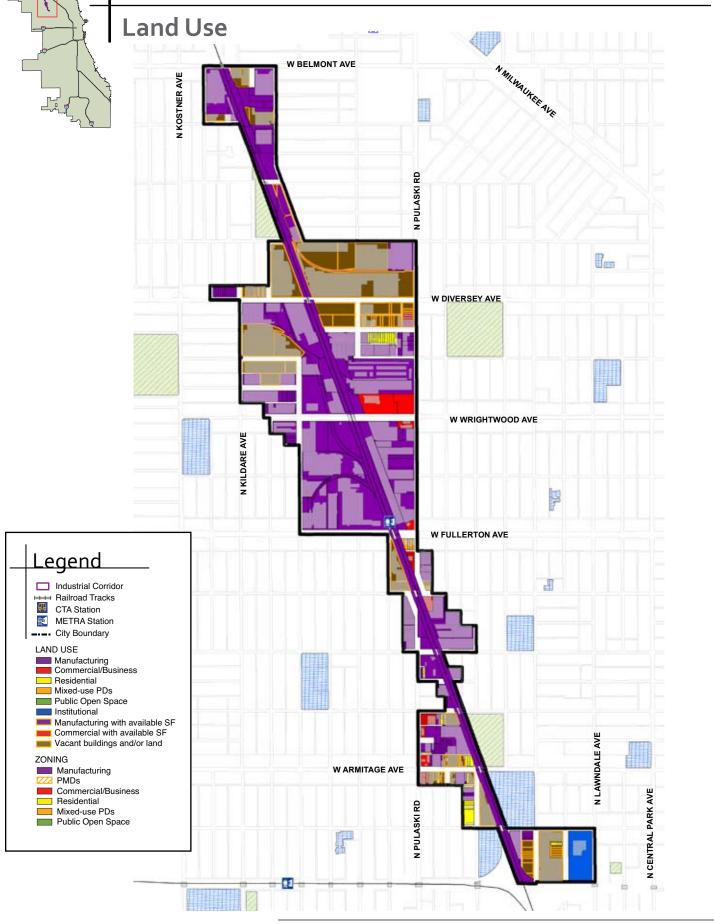
N TRIPP AVE



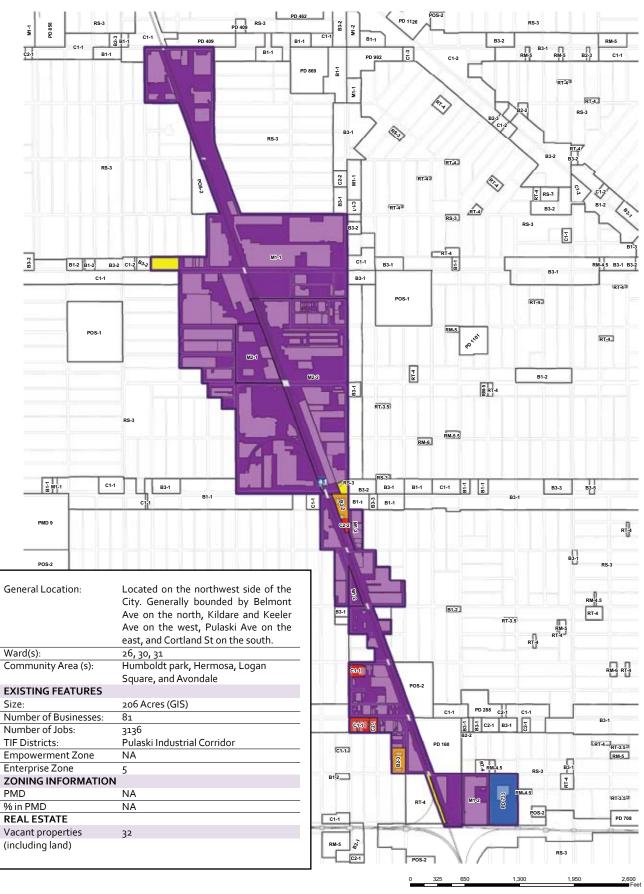


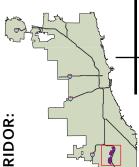


### Industrial Corridor – Pulaski









Legend

Railroad Tracks Industrial Corridor

City Boundary LAND USE Manufacturing

ZONING Manufacturing

**PMDs** 

Residential

Mixed-use PDs Public Open Space

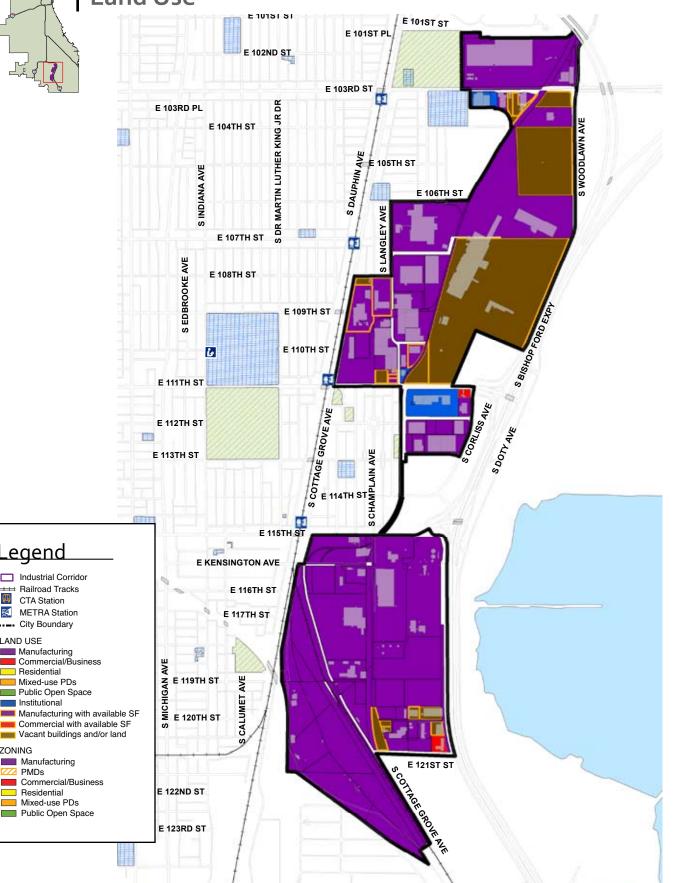
METRA Station

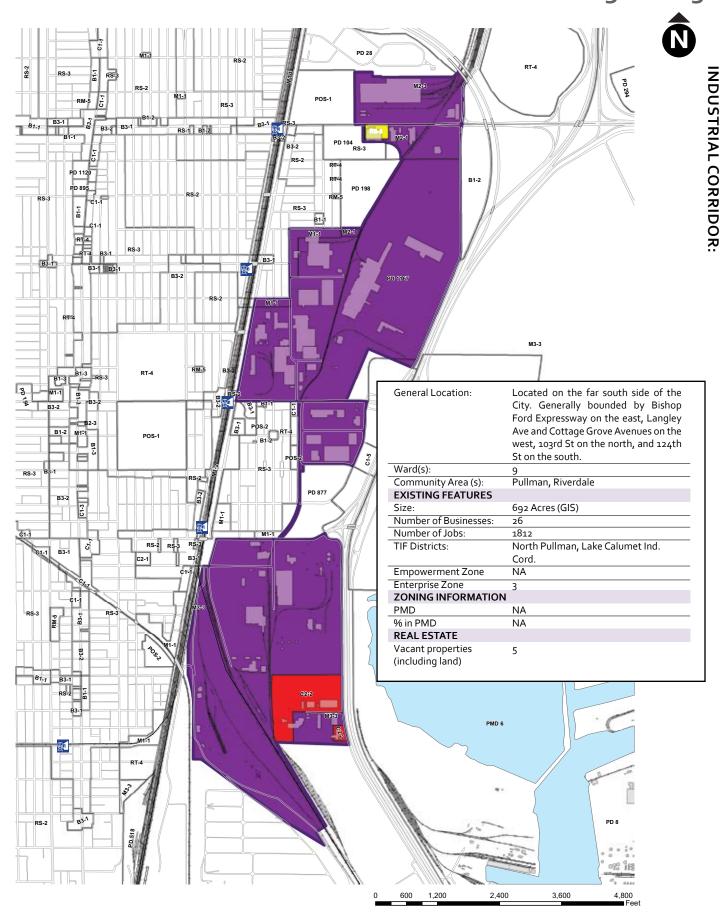
Commercial/Business Residential Mixed-use PDs

■ Public Open Space Institutional

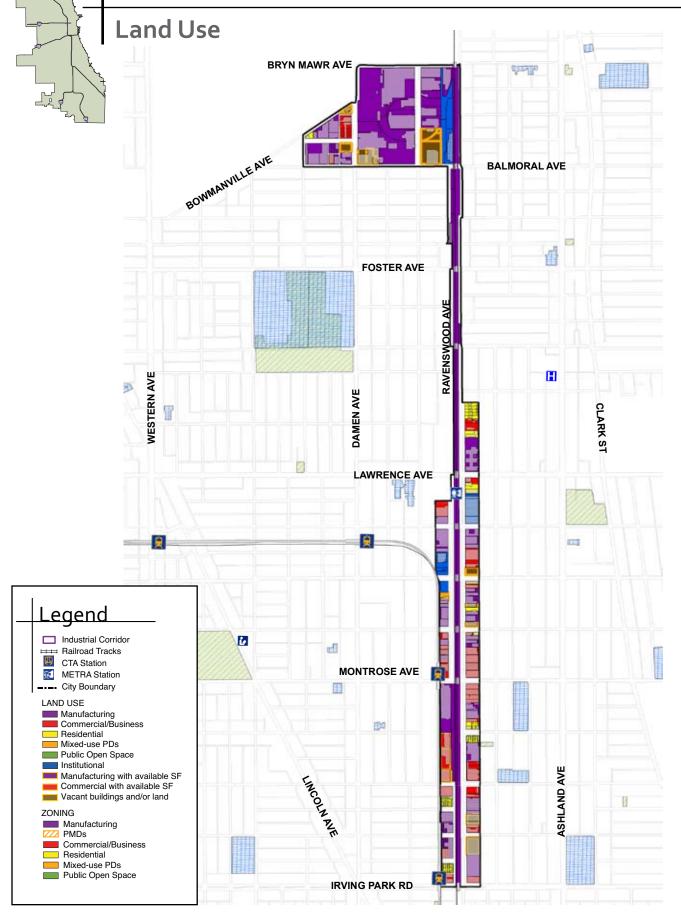
### Industrial Corridor – Pullman

#### **Land Use**

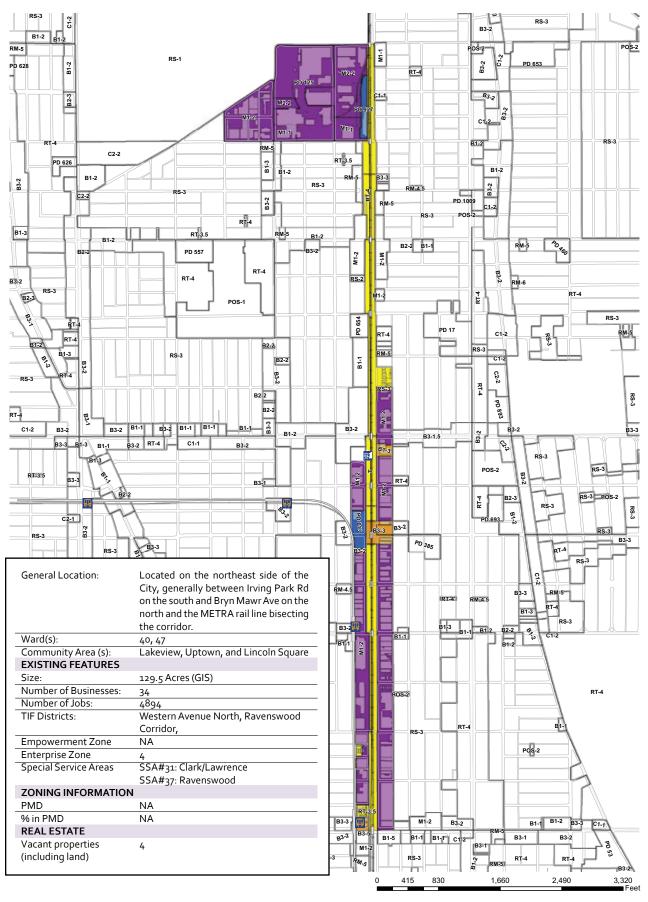




#### Industrial Corridor – Ravenswood

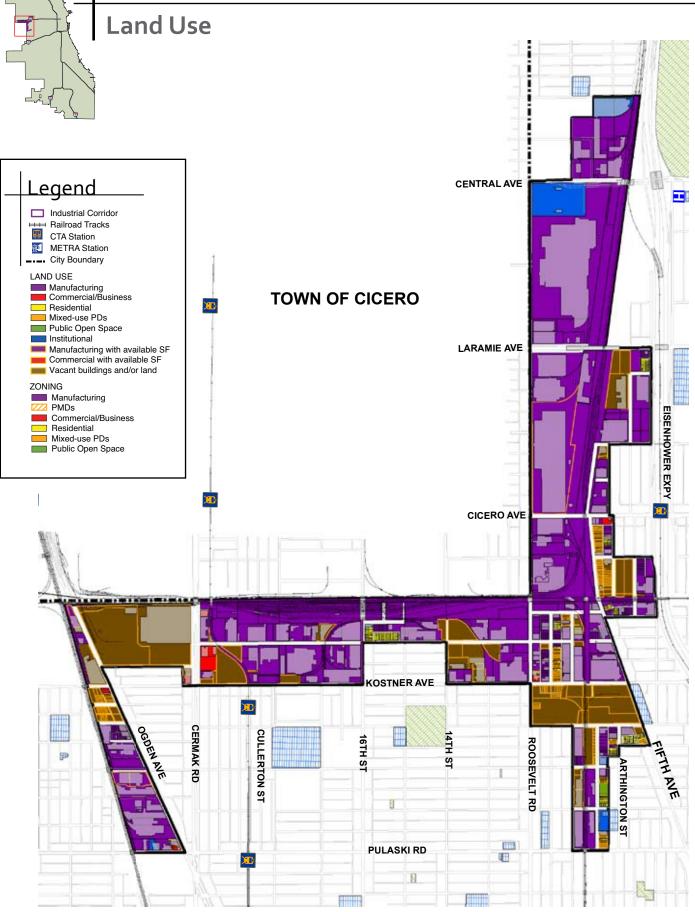


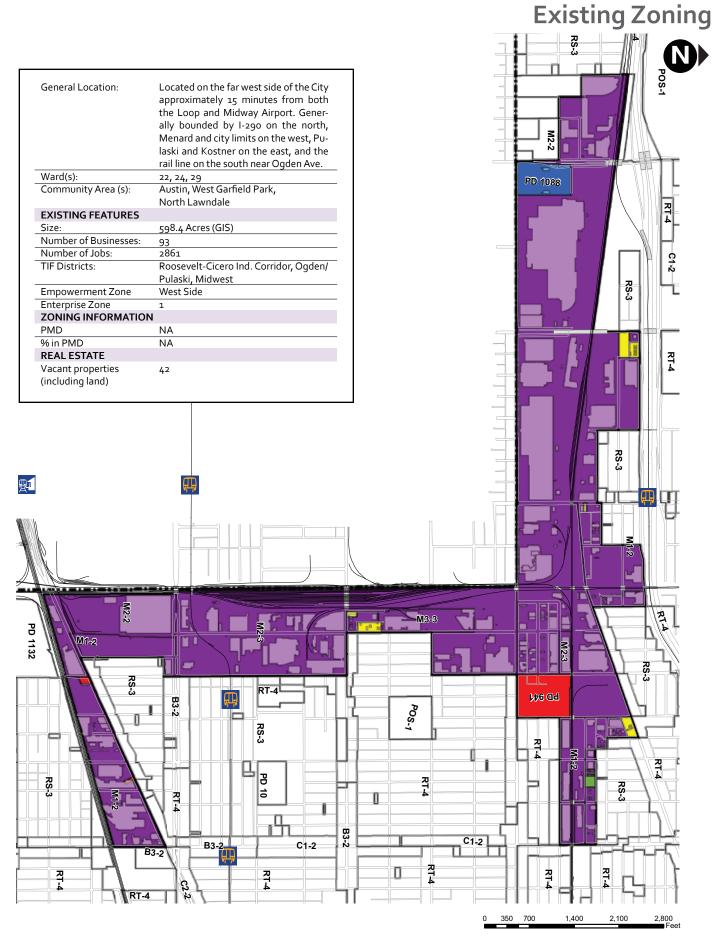


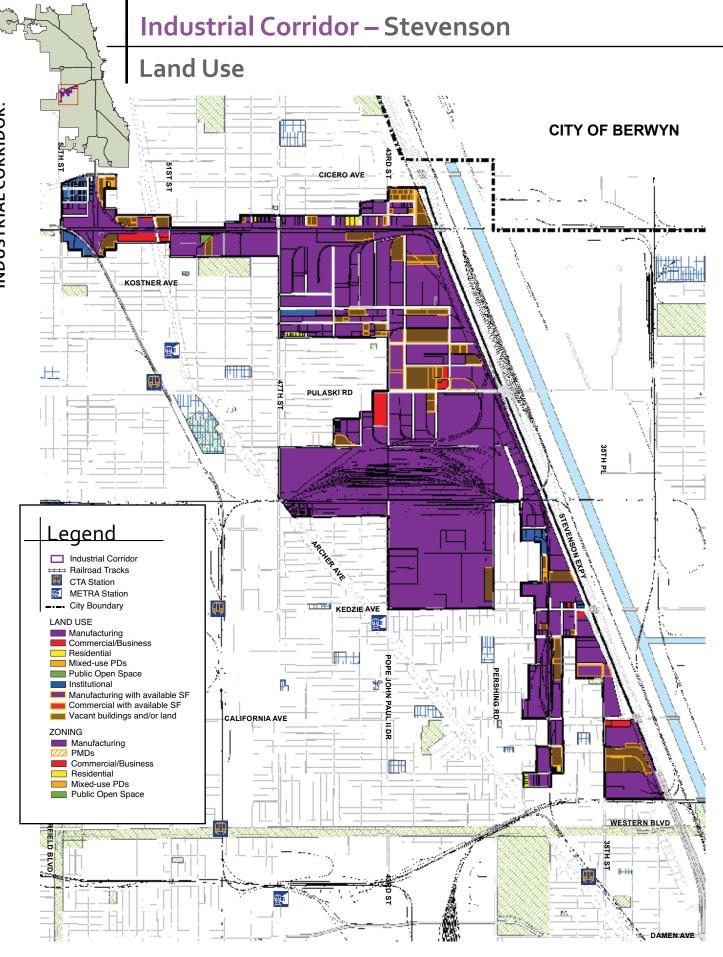


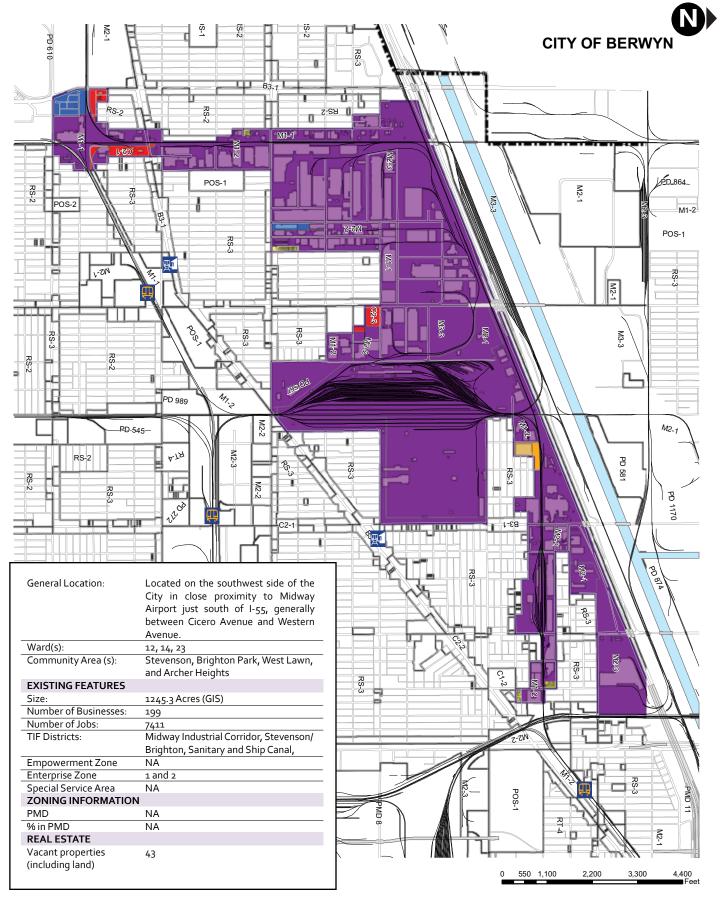


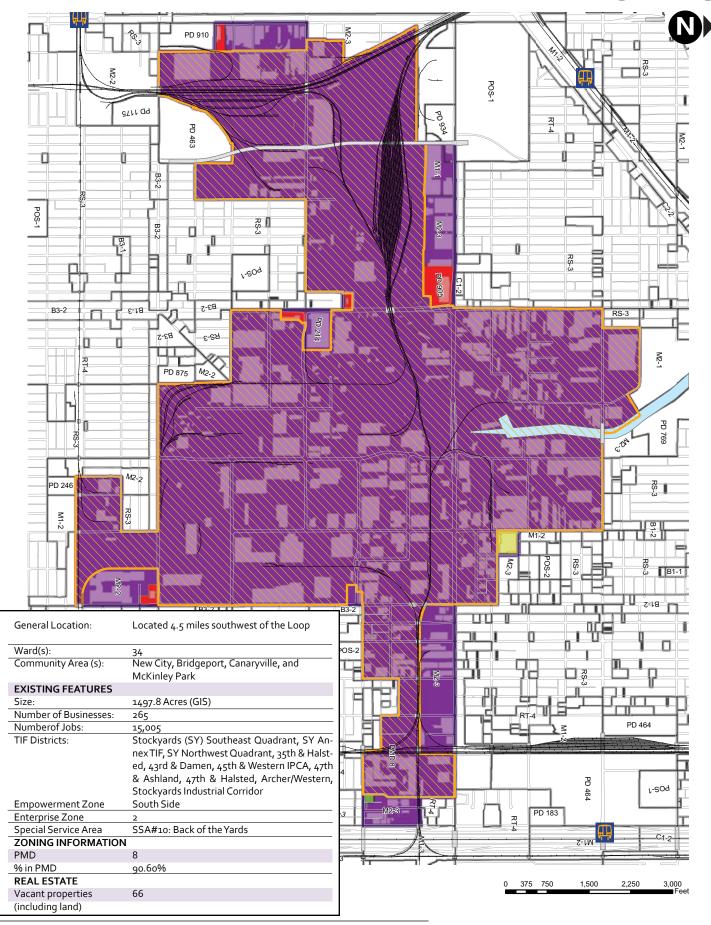
# Industrial Corridor – Roosevelt/Cicero













# Industrial Corridor – West Pullman

## **Land Use**



Legend

Industrial Corridor CTA Station METRA Station

\_\_\_. City Boundary LAND USE

Residential

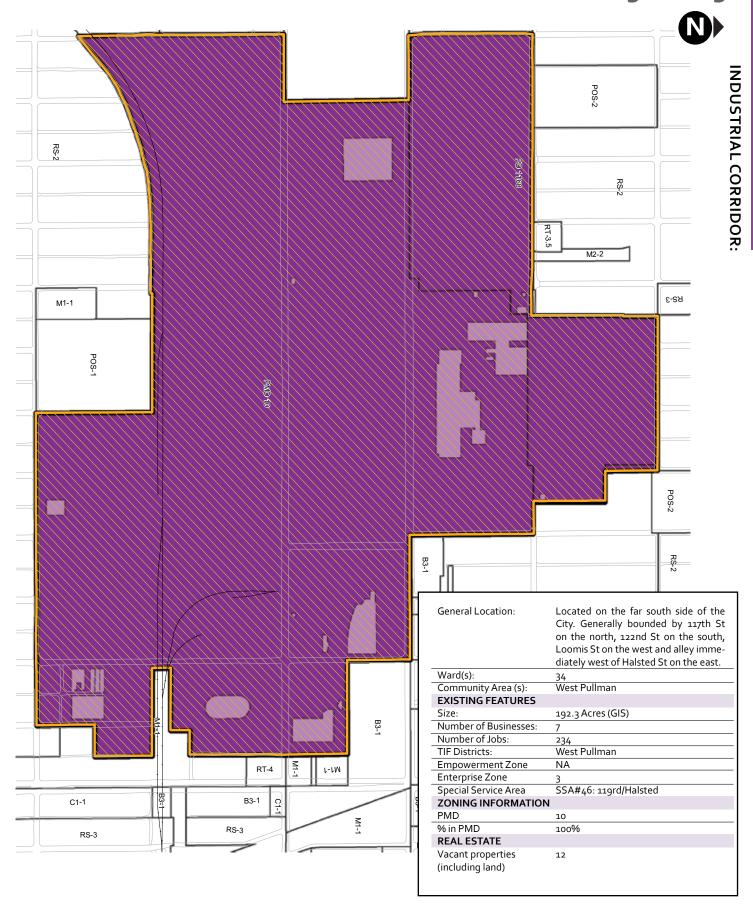
Institutional

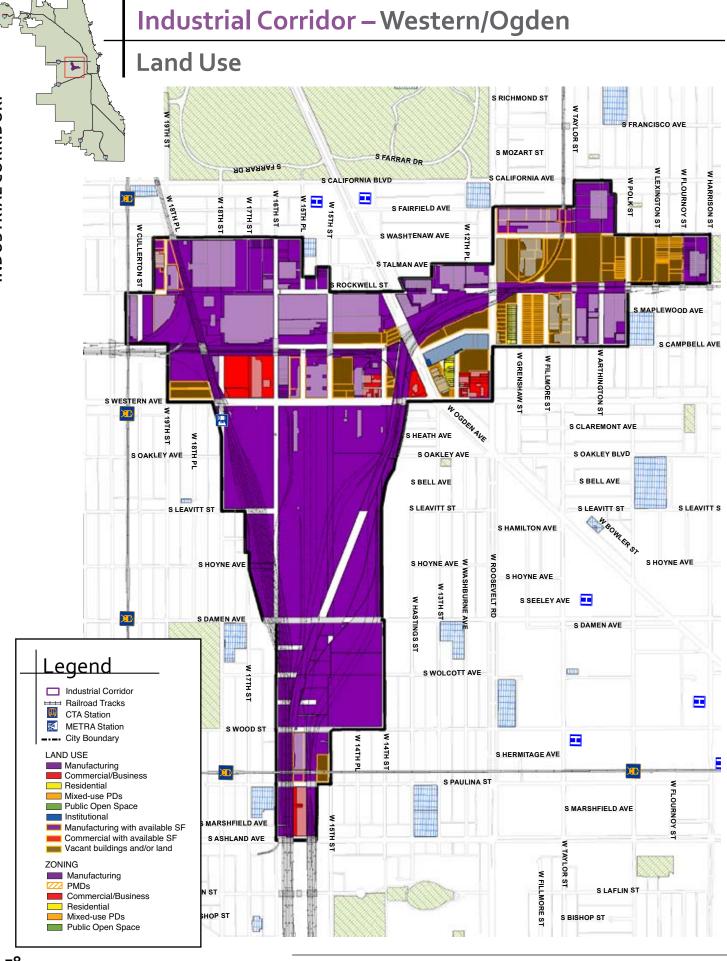
ZONING Manufacturing PMDs

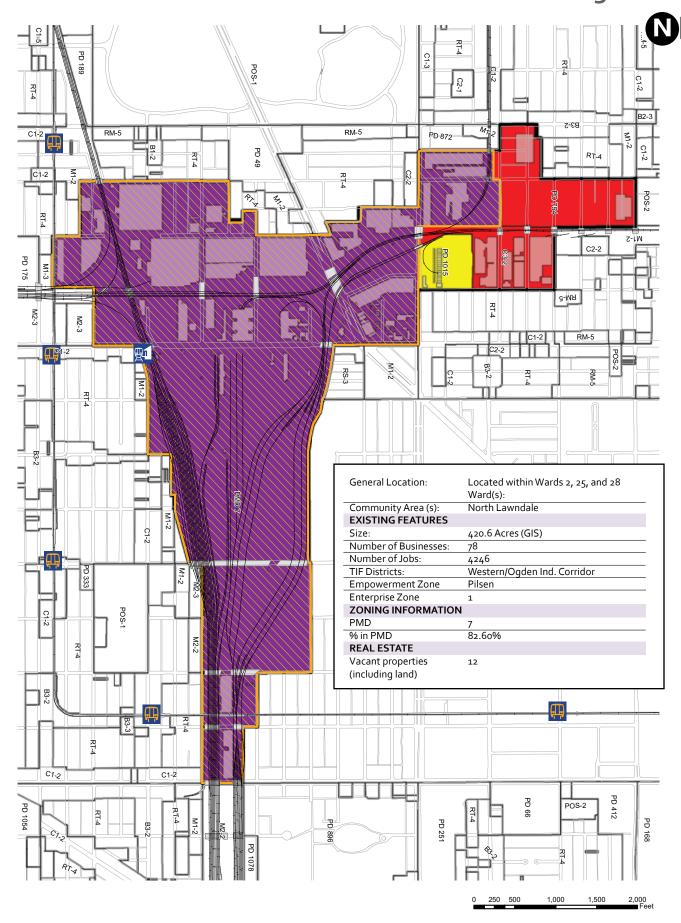
Mixed-use PDs Public Open Space

Manufacturing
Commercial/Business

Commercial/Business Residential Mixed-use PDs Public Open Space







# **City Incentives**



The Department of Housing and Economic Development (HED) offers financial assistance programs and incentives to help stimulate economic development and to create jobs for residents of Chicago. Programs are structured for industrial and commercial businesses and not-for-profit organizations that are either located in or moving to the city. Incentives include:

#### Industrial Development Revenue Bonds

Industrial Development Revenue Bonds (IRBs) are issued by the City on behalf of manufacturing companies to finance the acquisition of fixed assets such as land, buildings or equipment (up to a maximum of \$10,000,000). Proceeds may also be used for new construction or renovation. Up to 100 percent of total project costs may be financed for a term up to 120 percent of the expected economic useful life of the assets.

#### **Empowerment Zone Bonds**

Empowerment Zone Bonds are issued on behalf of businesses located in or moving to an Empowerment Zone for the acquisition of the same types of fixed assets as under the IRB program. Bonds may be issued on behalf of any qualified business (not restricted to businesses which manufacture or process tangibles). Limitations are placed on all bond issues to maintain tax-exempt status.

#### Thoughts on Industry

When faced with scarce public dollars and limited resources, it makes more sense than ever before to invest those dollars and resources into companies and practices that provide a city or a state with the greatest return on investment.

Center for Labor and Community Research. The State of Illinois Manufacturing – A report for the Illinois Manufacturers' Association. December 2003.

#### **Bank Participation Loan**

Works through banks and other conventional lenders to provide subordinated financial assistance to businesses. The city's participation brings the overall interest rate for the loan down.

#### **Enterprise Zone**

City, County and State tax incentives are available to eligible commercial and industrial businesses located in or moving to one of six designated Enterprise Zones within City limits. The program is administered by HED in conjunction with the Illinois Department of Commerce and Economic Opportunity and provides incentives such as a sales tax exemption for building material supplies, job creation tax credits and exemption from the real estate transfer tax for qualifying businesses.

#### Tax Increment Financing

Tax Increment Financing is a special funding tool used by the City of Chicago to promote private investment in blighted sections of the city. Funds are used to build and repair roads and infrastructure, clean polluted land and put vacant properties back to productive use, usually in conjunction with private development projects.

#### **TIFWorks**

TIFWorks funds workforce training costs for companies located in many City of Chicago TIF districts. With TIFWorks' support, businesses become better equipped to improve performance and productivity, expand product lines and gain new customers. The program helps companies develop and expand product lines, adapt to new technologies and equipment, comply with occupational or industry regulations, expand into new markets and promote growth and increase profit.

#### Small Business Improvement Fund (SBIF)

The program uses local Tax Increment Financing (TIF) revenues to help owners of commercial and industrial properties and/or tenants within specific TIF districts to repair or remodel their facilities. Program participants can receive reimbursing grants to cover 25%, 50%, or 75% of the cost of remodeling work, with a maximum grant amount of \$ 150,000. The grant does not have to be repaid.

#### The New Market Tax Credit

The New Market Tax Credit (NMTC) program is a federal initiative that aims to generate employment and other benefits for residents of low-income communities. The program provides federal income tax credits to financial institutions in exchange for investment in a Community Development Entity, which then uses these funds to provide capital to businesses or real estate projects in qualifying areas. The benefits of NMTC financing include below market interest rates, loan to value ratios as high as 95 percent of costs and potential for partial debt forgiveness.



#### **Cook County Property Tax Incentives**

Cook County Property Tax Incentive programs are designed to encourage industrial and commercial development throughout the county by offering reduced real estate taxes over a 12-year period. The incentive for industrial property is known as the Class 6b. Eligible projects include new construction, rehabilitated facilities and reoccupancy of industrial buildings that have been vacant for two years. In the absence of a 6b incentive, industrial real estate would normally be assessed at 25 percent of its market value. Properties receiving Class 6b are assessed at 10 percent of market value for the first 10 years, 15 percent for the 11th year and 20 percent for the 12th year, returning to 25 percent in year 13.

#### Street and Alley Vacation

The vacation program conveys ownership of underutilized public streets and alleys to adjacent industrial businesses. The vacated properties are used to expand plant operations, provide for parking, truck staging and improve security.

#### Local Industrial Retention Initiative (LIRI)

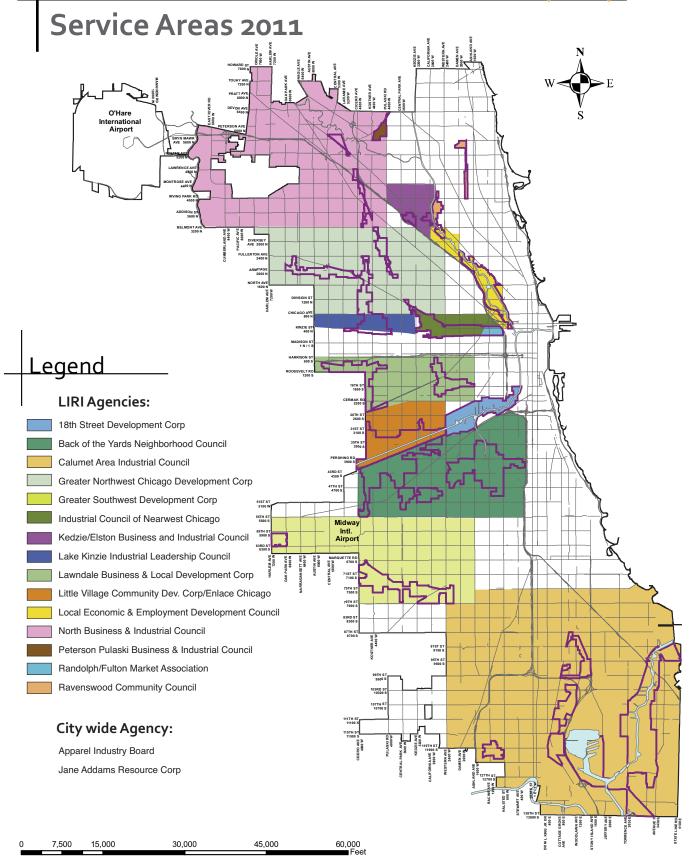
The City of Chicago's Local Industrial Retention Initiative (LIRI) funds local non-profit industrial councils to provide planning and stewardship to the city's 24 industrial corridors and business retention services to the companies that operate within them. They serve over 2,500 companies in corridors throughout the city. Along with the activities they perform for their city contracts, many of these independent organizations have extensive community development services and expertise and all are important economic development partners. As city delegate agencies, the industrial councils (known as LIRIs) reach out to the companies in their service areas and identify and address their needs in order to retain or expand those companies within the city. LIRIs provide varied services including facilitating city services, marketing and assisting with public incentives, providing educational and networking opportunities, promoting the area and local business and planning and advocating for the long-term vitality of the industrial corridors. Two LIRIs have sector focussed on responsibilities for apparel and metals.

#### Thoughts on Industry

Illinois and Chicago governments organize their economic development activities by geography (e.g. Northwest Chicago) which is antithetical to promoting cluster benefits across the region and causes government officials to focus on dividing benefits versus producing collective gains. We recommend government reorganize its economic development activities around industry clusters.

Michael Porter. The Chicago Processed Food Cluster – The Microeconomics of Competitiveness. Harvard University. May 5, 2006.

# Industrial Corridors and Local Industrial Retention Initiative (LIRI)



# <u>Acknowledgements</u>

### **Department of Housing and Economic Development**

**Andrew Mooney,** Commissioner

Michael Berkshire Justin Klusas

Mary Bonome John Molloy

Jeanne Chandler Luis Monterrubio

Nora Curry Patrick Reilly

Kathleen E. Dickhut Bradley Roback

Lauren Dutkiewicz Victor Rojas

Will Edwards Patricia A. Scudiero

Heather Gleason Peter Strazzabosco

Benet Haller Steven Valenziano

Michael Jasso Lisa Washington

Elizabeth Kloser

#### **Metro Chicago Information Center**

Virginia Carlson, President

Taryn Roch

Thanks to the U.S. Department of Commerce, Economic Development Administration for providing funding for research and planning for Chicago Sustainable Industries.



City of Chicago Richard M. Daley Mayor