

**CITY OF SEATTLE  
DEPARTMENT OF PLANNING AND DEVELOPMENT**

**INDUSTRIAL LANDS SURVEY**  

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**Investigation of Comparable Cities**



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# Introduction

Approximately 12 percent of the land in the city of Seattle is zoned Industrial (IG1, IG2, IC, or IB). The City (in its Comprehensive Plan) recognizes the key role that industrial lands play by providing locations for family wage industrial jobs. Because of this, the City has made a commitment to protect its industrial lands from conversion to non-industrial uses and incompatible adjacent uses.

However, the City's industrial lands are under pressure to be converted to non-industrial uses because they are typically inexpensive relative to other lands in the city. In many cases industrial lands have few improvements, which translates into low demolition costs. They are also some of the few large, flat parcels, which do not require property consolidation (City of Seattle, 2005).

Allowing conversions of industrial lands from industrial uses to office or commercial uses results in the loss of opportunity for industrial land users and produces a secondary effect of incentivising investors to buy land with the expectation that non-industrial uses will be allowed on their property sometime in the future. This speculation has the effect of driving up land prices and thus rents. The consequence is often displacement of industrial users who cannot afford the inflated rents.

Another secondary effect is the potential for conflicts between industrial uses and lower intensity residential, office, or retail uses. Conflicts can arise from the traffic, dust, noise, odor, or hour of operation associated with industrial uses. These conflicts often generate complaints from nearby non-industrial users.

In recognition of the importance of the City's industrial lands, the pressures that industrial lands face, and the potential for conflicts between industrial and non-industrial land uses, the City's Department of Planning and Development (DPD) is developing a comprehensive strategy for industrial lands. The strategy will identify industrial lands for protection and establish policies and implementation measures to protect those lands for industrial uses.

As an initial step toward creating a comprehensive industrial lands strategy, DPD has retained ESA Adolfson to conduct an investigation of other comparable U.S. cities to determine if their industrial lands are facing similar conversion pressures, what type of future demands they are expecting from their industrial sector, and what strategies they are implementing to address conversion pressures. This report summarizes a series of phone interviews made to eight other North American cities. It is meant to complement and add to a previous comparison of industrial land strategies completed by Seattle Planning Commission staff in 2005.

# Methods

Information for this investigation was collected from eight North American cities selected because of similarities in size, geography, land use patterns, or development history. DPD proposed six of the cities and ESA Adolfson staff developed a list of the others. The cities also represent regional and national perspectives. The eight cities selected for this study were:

- |                                |                               |
|--------------------------------|-------------------------------|
| 1. Portland, Oregon            | 5. Chicago, Illinois          |
| 2. Vancouver, British Columbia | 6. Minneapolis, Minnesota     |
| 3. San Francisco, California   | 7. Boston, Massachusetts      |
| 4. Los Angeles, California     | 8. Philadelphia, Pennsylvania |

Information for this study was collected from a series of telephone interviews with City staff, asking each to discuss specific questions regarding the issues facing their industrial lands and the strategies they have employed to preserve their industrial land uses. The telephone interviews were conducted in December 2006 and January of 2007. The interview questions were largely developed by DPD with input from ESA Adolfson. The questions included:

1. What are the long-term employment trends in the industrial sector?
2. What are the vacancy rates for industrial properties?
3. What pressures are owners of industrial properties facing to convert to non-industrial uses; what are water-dependent industries in particular facing?
4. What policies have been put into place to encourage emerging industries?
5. What tools (programs, projects, regulatory mechanisms) have been developed to retain existing industrial landowners and attract new industrial uses?

The results from the phone interviews are reported in the following section. Where City staff respondents were unable to answer question or where additional information was available, responses were augmented with a review of relevant and available plan and policy documents as well as an overview of their respective industrial zoning regulations.

# Results

In general, our findings indicate that all of the cities with whom we have had conversations are experiencing pressures to convert industrial lands to other uses. Most note an historical trend of a loss of industrial lands and a relatively recent acknowledgement of their value and an attempt to reverse or at least slow the rate of conversion.

Another frequently mentioned aspect of interest was that speculation on land use conversion in industrial areas is putting pressure on land prices, making it difficult for manufacturing businesses to stay in businesses and new manufacturing businesses to locate. Also, some respondents indicated that in addition to pressures to convert to residential, retail, and office uses, pressure is also coming from institutional uses (such as schools). Institutional users are also looking for large, flat parcels with access to transportation routes.

Most of the cities either have some type of strategy in place for addressing conversion and conversion pressure or are in the process of developing a strategy. Current and planned strategies include both regulatory and non-regulatory means. Our results indicate that most of the cities employ similar forms of zoning regulations as Seattle. Two notable exceptions are Chicago and Boston. Chicago's PMDs, aim to limit zoning changes and Boston's waterfront zoning designations apply a specific regulatory regime to waterfront industrial areas. Additionally, most of the cities included in this survey utilize special overlay or neighborhood districts with specific regulatory approaches. Some of these may include more innovative strategies. Further in-depth research could prove valuable.

Non-regulatory or incentive based measures include a wide range of strategies that fit into several general categories:

- a. Identification of industrial land areas where preservation efforts should be focused;
- b. Development of tax incentives or loans for existing or new industrial businesses;
- c. Coordination with other agencies and/or industrial councils and non-profits to create more comprehensive strategies;
- d. Public investment in infrastructure, brownfield development, workforce training;
- e. Development of comprehensive land use strategies aimed at retaining industrial lands for manufacturing by allowing more flexibility in the zoning regulations; or
- f. Ongoing data gathering programs to track trends and progress of strategies.

## **Question 1. What are the long-term employment trends in the industrial sector?**

The responses to this question indicate that most cities have gone through or are going through a transformation in the types of manufacturing occurring on industrial lands. In general heavy manufacturing and natural resource-based industries are being replaced by lighter and more specialized industries. Many of the respondents did not have specific industrial forecast estimates. In these cases, we

attempted to provide a snapshot of industrial economic conditions indicating possible future performance, based on the interview responses and reviews of available documents.

**Portland, OR.** According to City staff, 20-year industrial job growth in the Portland Metro area (Metro) is approximately triple the national average. Metro's regional 2000-2030 forecast projects 1.5 percent annual job growth in transportation, 1.6 percent in wholesale trade, and 0.8 percent in manufacturing. In order to accommodate expected future industrial growth, Portland Metro added 4,000 industrial acres to the urban growth boundary in 2002 and 2004.

Portland's Regional Industrial Lands Study for the Portland and Vancouver Metropolitan Area (1999) found that by 2020 approximately 90,000 new jobs will require industrial lands and approximately 64.6 million square feet of industrial building space will be needed to accommodate those jobs

**Vancouver, BC.** Total employment in Vancouver has been growing steadily over the last 30 to 40 years, but there have been dramatic changes in the types of jobs. Traditional heavy industries have declined while new jobs in personal and business services have expanded sharply. After this gradual decline of more traditional industries, especially forest products, a number of areas have been redeveloped.

According to City staff, Vancouver is seeing steady growth in the industrial sector. The primary growth sector is manufacturing including clothing, food, printing/publishing, and niche manufacturing. Most of the industrial sector now serves local businesses (small-scale). Wholesale has experienced some growth and transportation / utilities / communications related industries have been steady. Overall growth is mostly in relation to the Port's continued growth in container shipping.

**San Francisco, CA.** According to City staff, industrial employment in San Francisco has shrunk over the last several decades but has generally stabilized in the last few years. Slight increases are projected in the next 20 years in areas such as construction, but also in areas with a specialized and/or locally serving market.

**Los Angeles, CA.** City staff indicated that manufacturing in Los Angeles is declining. In the past 10 years, a significant amount of heavy manufacturing has been replaced with light manufacturing, warehousing, and service industries. The Los Angeles Economic Development Corporation has identified seven industries that it considers to have high growth potential. They are motion pictures, transportation, printing and publishing, motor freight transportation and warehousing, transportation by air, water transportation, and local/suburban transit (City of Los Angeles, 2005).

**Chicago, IL.** According to City staff, Chicago has experienced considerable industrial job losses in recent years. Jobs are currently being retained or are changing to more highly skilled positions to meet the needs of specialized industrial niche businesses/products. Many of the past industrial job losses were due to international trends that were out of the City's control. The jobs that are expected to be retained are considered good, highly skilled, and higher paying jobs.

**Minneapolis, MN.** According to City staff, light and medium industry are expected to recover over time whereas heavy industry is not. The City recently conducted an employment trend analysis to see which types of jobs would be growing in the future (City of Minneapolis, 2006). The analysis forecasted that

manufacturing industry groups would decrease by approximately 18 percent between 2000 and 2010 and increase only slightly (approximately 1.4 percent) by 2020.

**Boston, MA.** Since 1969, Boston has lost 67,000 manufacturing and wholesale trade jobs. The Boston economy has transitioned to a service economy with growth in financial services, business services, health care, and education. Many industrial businesses are locating in the suburbs to accommodate demands for larger space and to find lower land costs and rents. The City of Boston hopes to maintain its current base of manufacturing and other industrial operations.

**Philadelphia, PA.** Philadelphia used to have over 300,000 manufacturing jobs. Today this figure is closer to 30,000-40,000. There has been a significant loss of industrial jobs. Warehousing, distribution, construction operations, maintenance operations, and waste management are sectors that serve the local economy and are fairly stable.

## Question 2. What are the vacancy rates for industrial properties?

Most of the respondents contacted indicated that they did not know vacancy rates for industrial lands in their cities. In cases where contacts had information, it was included. We augmented those responses with recently published (third and fourth quarter 2006) industrial vacancy rate figures published by C.B. Richard Ellis (CBRE). The CBRE figures may differ from those reported by City staff because they represent availability for the entire metropolitan regions instead of municipal boundaries; for comparison both are supplied where available. City staff may also use different formulas for estimating industrial land vacancy rates. CBRE reported an overall vacancy rate of 6.38 percent for the greater Puget Sound industrial area in the third quarter of 2006. The City of Seattle's vacancy rate was 3.38 percent (CBRE, 2006a).

**Portland, OR.** According to Portland staff, CoStar's published industrial vacancy rates in mid-2005 were approximately 6.9 percent in Portland's harbor industrial districts and 11.3 percent in Portland's Columbia Corridor districts. Rates were somewhat higher in the suburban districts, ranging from 8.8 percent to 14.6 percent. CB Richard Ellis data indicates a 6.01 percent vacancy rate for the third quarter 2006 for Portland (CBRE, 2006b).

**Vancouver, BC.** According to City staff, the industrial vacancy rate in Vancouver was very low, in the range of two to three percent. CB Richard Ellis data reported that the industrial vacancy rate for greater Vancouver was 1.7 percent in the fourth quarter of 2006 (CBRE, 2006c). The vacancy rate for the City of Vancouver was 1.2 percent.

**San Francisco, CA.** CB Richard Ellis data for the San Francisco Peninsula reported a 5.2 percent industrial vacancy rate for third quarter of 2006 (CBRE, 2006d). This data was not available for the City of San Francisco. According to interviews with city staff in the fall of 2006, the estimated vacancy rate in the city was approximately 2.7 percent. This represents a recent trend of continued decreases in the vacancy rate and increasing rent rates. The discrepancy between reported vacancy rates could be attributed to the difference between the City of San Francisco and the greater peninsula area.

**Los Angeles, CA.** CBRE reported an industrial rate of 1.3 percent for Los Angeles County and a vacancy rate of 0.3 percent for the City of Los Angeles for the fourth quarter of 2006 (CBRE, 2006e).

**Chicago, IL.** CB Richard Ellis reported an 8.8 percent industrial vacancy rate for fourth quarter of 2006 (CBRE, 2006f).

**Minneapolis, MN.** According to City staff interviews the, vacancy rate for industrial properties in Minneapolis is in the range of 7.5 percent and 8.9 percent for the metropolitan area. CB Richard Ellis reported a 5.7 percent vacancy rate for fourth quarter of 2006 (CBRE, 2006g).

**Boston, MA.** CB Richard Ellis reported a 15.3 percent industrial vacancy rate for the Greater Boston Metropolitan Area and a 15.9 percent vacancy rate for the City in the third quarter of 2006 (CBRE, 2006h).

**Philadelphia, PA.** According to City staff, vacancy rates differ between industrial areas. In areas that support marketable industry, the vacancy rate is less than 10 percent. In areas that are older or in declining sectors, vacancy rates are much higher than 10 percent. According to CB Richard Ellis, the city's industrial vacancy rate for the third quarter of 2006 was 6.3 (CBRE, 2006i).

### **Question 3. What pressures are owners of industrial properties facing to convert to non-industrial uses; what are water-dependent industries in particular facing?**

In general all of the respondents indicated that industrial lands were in high demand for non-industrial uses. Respondents indicated that, in addition to demand for residential, retail, and office uses, institutional uses, such as schools, also represented a source of conversion pressure. According to most respondents, demand generates pressure on city government to change land use regulations or grant special conditions. High demand also generates land speculation, which inflates land values and rents. Respondents also indicated that conversion pressures were keenly felt by industrial lands in shoreline areas. Many of the cities had special policies and regulations meant to retain these lands for water-dependent industrial uses.

**Portland, OR.** City staff indicated that three comprehensive plan amendment proposals were made last year to convert "industrial sanctuary" sites, including two along the harbor. Two were approved and one denied. There has also been continuing pressure to convert industrial land in the Central City (extended downtown) for high-density, mixed-use development. Industry managers have expressed concerns that the willingness of the City to retain industrial land is an important factor in their decisions about long-term investments.

**Vancouver, BC.** Respondents indicated that Vancouver is committed to preserving its remaining industrial land for industrial purposes. The City believes that there are some early signs that some businesses that need good access to downtown and other city customers and other businesses are returning from out-of-city locations. However, as remaining industrial areas become more intensively developed, and former industrial areas are redeveloped, opportunities for these types of uses are becoming increasingly scarce.

The scarcity of developable properties is creating continued pressure on industrial lands for non-industrial uses, such as recreation and community uses, as well as specialty and big-box retailing which focuses on direct car access. The City is also experiencing ongoing land speculation. Much of the speculation is occurring in areas bordered by downtown or residential areas. According to City staff, the speculation continues to put pressure on land prices. The City is not allowing rezoning, despite ongoing land speculation.

**San Francisco, CA.** The City of San Francisco completed a review of the City's industrial Lands in a document titled *Industrial Land in San Francisco: Understanding Production, Distribution, and Repair* (2002). Speculation on real estate involving the conversion of industrial properties to other uses such as residential and office is a problem for industrial lands in San Francisco. Speculation that zoning or allowed uses will change, inflates prices and rents in the city's industrial areas.

Water intensive industries, such as linen suppliers, have been affected by high water rates, but the superior location afforded by a San Francisco location continues to outweigh this and other factors (particularly with the large restaurant and hotel industries).

**Los Angeles, CA.** According to City staff, there has been tremendous conversion pressure in Los Angeles. A significant amount of the City's industrial zoned lands have been (and continue to be) converted to non-industrial purposes, such as residential, retail, commercial, and institutional (primarily schools). In 2004 the City found that approximately 10 percent of industrial zoned land was being used as institutional, 8 percent retail, 4 percent residential, and 3 percent commercial. Land converted to non-industrial uses is assessed on average at a value that is approximately 29 percent higher than for industrial uses; it assessed even higher for retail and commercial uses. (City of Los Angeles, 2004), The result is higher rents for existing industrial users.

Market forces, a permissive zoning code, and an entitlement process are the prime drivers of conversion. The City's General Plan has allowed housing to be built anywhere in the City because of the need for housing. Other conversions have gone forward through plan amendments and zoning changes (City of Los Angeles, 2004).

According to City staff, there are no particular pressures for water-dependent industries to convert.

**Chicago, IL.** According to City staff, there is tremendous pressure on industrial real estate to be converted to residential or retail uses. Chicago's North River Industrial Corridor faces particular pressure for conversion because of high land values in the surrounding area. The riverfront property is attractive to residential developers interested in views.

The main issue all industrial users are facing in Chicago is finding appropriate, affordable sites. Many of the industrial buildings are older multi-story structures that aren't appropriate for modern manufacturing. Also, the prices are high, particularly on the north side of the city, because of real estate speculation and the scarcity of industrial land is in part due to past rezoning.

**Minneapolis, MN.** According to City staff, there has been a great deal of residential incursion into industrial areas as the value of land has increased. A planning study was completed in 2000 on the Upper River, which flows through industrial lands (some of which are river-related). Actions resulting from the

study opened up much of these industrial lands to convert to residential, recreation and other non-industrial uses.

Location for water-dependent uses is limited in the city. The City has a small port on the river and there is some scrap metal industry. There has been public interest in closing the Port. The Port is identified in the plan (City of Minneapolis, 2006) as a redevelopment opportunity for non-river-based use (primarily residential/commercial).

**Boston, MA.** According to City staff, the pressures to convert industrial lands to other uses vary between specific locations. Demand for industrial lands is greater in locations that have good transportation access and infrastructure. There is greater pressure to convert industrial lands to other uses, such as office or residential, in areas that are surrounded by residential uses.

Boston has City (and State) regulations on properties located at the water edge. These areas, designated port areas, must have port related businesses. Also, certain areas are designated for water-dependent uses only. These areas are strictly defined and regulated so that pressures to convert are less evident.

The Boston Marine Industrial Park (BMIP) is home to a wide variety of marine-related, industrial and light industrial businesses. The availability of low-cost industrial buildings and unique maritime infrastructure enabled the Marine Industrial Park to be used for many new and expanding businesses. This area is in high-demand from water-related industry. There is little pressure to convert to non-water related businesses in these areas.

**Philadelphia, PA.** According to City staff, the City has experienced conversion of many of its older industrial lands to retail, particularly big box retail, which are attracted by large flat sites. The smaller sites adjacent to popular residential areas receive pressure to convert to residential use. There is also competition for industrial property from public institutions (schools). There is a strong charter school movement that has acquired dozens of industrial parcels.

Philadelphia has port facilities and a lot of container shipping. There has been speculation to develop residential towers on these waterfront parcels. Large parcels of land on active maritime districts have been held in reserve by private interests speculating in gambling/casino development. The City is poised to award casino approvals to at least two of these sites.

## **Question 4. What policies have been put into place to encourage emerging industries?**

Many of the comparable cities have or are currently going through a transition from traditional industrial manufacturing to more specialized types of manufacturing. Most of the comparable cities are also attempting to retain their existing stocks of industrial lands in industrial uses and position themselves for future industrial growth. For these two reasons the answers to this question are somewhat similar to those for Question 5. In many cases, cities are trying to encourage emerging industries as a means of preserving their industrial lands. We have tried to differentiate the responses between these two similar goals, but the responses from both question 4 and 5 should be considered together.

**Portland, OR.** According to City staff, the Portland Development Commission provides business assistance services and economic development loan programs. These programs are focused toward target industries, including the largest traded sectors, metals and equipment, high tech, distribution, professional services, apparel, and food products, as well as some emerging industries, creative services, biosciences, and sustainable industries (mainly alternative energy).

Industrial zoning in the City's Central Eastside (in the central city) was recently amended to allow industrial office uses in an attempt at facilitating information sector growth. The South Waterfront urban renewal area has made major tram and streetcar investments that facilitate expansion of the Oregon Health Sciences University (OHSU) and associated biosciences research facilities.

**Vancouver, BC.** The City has created an ability to adjust definitions of industrial uses in their zoning code to accommodate appropriate industrial uses. The City is also able to adjust zoning as necessary to reflect the needs of emerging industries. According to City staff, the City lets the "market" and zoning control which industries locate in the city. The City makes sure that the land base is adequate and zoning designations are in place.

**San Francisco, CA.** City staff indicated that, temporary measures such as industrial protection zones have been instituted in the last several years, as a rezoning of industrial land in the city continues. Rezoning is anticipated to be completed early next year (2008). The rezoning will retain a core of industrial land, exclusive of housing and other uses, while allowing the conversion of some industrial land that is no longer needed. Also, economic development programs promoting the retention of such businesses are starting to become available. Also, see response to question 5.

**Los Angeles, CA.** According to City staff, Los Angeles has not developed policies aimed specifically at encouraging emerging businesses at this time. Also, see response to question 5.

**Chicago, IL.** The City recognizes that improving the digital infrastructure will enable new and current industrial users to compete more effectively in the national and global market. Business owners in certain areas are particularly concerned about the lack of high-speed Internet access.

**Minneapolis, MN.** The City is focusing on encouraging industrial sectors that produce high intensity and high valued jobs. Also, see response to question 5.

**Boston, MA.** According to City staff, the Boston economy has been shifting away from traditional industry to medical and institutional uses for some time. Medical and institutional business accounts for 30 percent of the economy. Traditional industry and light industry has not been that successful in Boston. The Boston Redevelopment Authority (BRA) maintains an industrial space "site finder" to help growing and new companies find the space they need to operate successfully in Boston. Through the Economic Development Industrial Corporation, the agency provides various important tools and services to support the needs of entrepreneurs. These include low-cost space for industrial purposes and financial resources to assist businesses with start-up or expansion.

**Philadelphia, PA.** City staff indicated that the City has several programs to encourage emerging businesses. The City has recently taken a hard look at what emerging industries are on the horizon and which are going to be competitive. Also, see response to question 5.

## Question 5. What tools (programs, projects, regulatory mechanisms) have been developed to retain existing industrial landowners and attract new industrial uses?

As shown in the responses to both questions 4 and 5 (as well as 1 -3), most of the respondent cities have developed or are in the process of developing some form of industrial lands strategy to establish long range plans for their industrial lands. In general, these strategies include defining geographical areas in which to implement industrial land protections, improving zoning codes and other regulations to reduce potential rezones and non-conforming uses, providing funding for infrastructure improvements, and providing tax incentives or loan options to industrial businesses.

**Portland, OR.** The City of Portland's primary tool to retain industrial land uses is its zoning code (City of Portland Code and Charter Title 33). Portland's zoning code regulates land uses through base zones as well as overlay zones and plan districts. Portland's industrial lands are included in the General Industrial (IG1 & IG2) and Heavy Industrial (IH) zones. These zones are meant to implement the Industrial Sanctuary map designation of the Comprehensive Plan. The code protects industrial uses in these zones by prohibiting development of non-industrial uses outright or restricting them through the City's conditional use process.

Uses that are allowed outright in the three industrial zones include manufacturing, warehouse and freight movement, wholesale, industrial services, railroad yards, rail lines and utility corridors, and vehicle service and repair. Uses that are prohibited include group living, schools, colleges, medical centers, and religious institutions. Uses permitted with conditions include residential, retail sale and service, office, commercial outdoor recreation, major events entertainment, community service, daycare, aviation and surface passenger terminals, and detention facilities.

Conditional use applications are processed through one of three procedure types (I, II, and III) according to the activity proposed. Changing to a conditional use in another use category is processed through a Type III procedure. Type II procedures require a quasi-judicial review and a public hearing before an assigned review body, such as the hearings officer.

The City's conditional use regulations also provide specific approval criteria for non-industrial uses in the industrial zones. The approval criteria are designed to "promote preservation of land for industry while allowing other uses when they are supportive of the industrial area or not detrimental to the character of the industrial area." The approval criteria for retail sales and service, office, commercial outdoor recreation, commercial parking facilities, community Service, and daycare uses are:

1. The proposed use will not have significant adverse effects on nearby industrial firms, and on truck and freight movement;
2. The transportation system is capable of supporting the proposed use in addition to the existing uses in the area. Evaluation factors include street designations and capacity, level of service; on-street parking impacts; access restrictions; connectivity; neighborhood impacts; impacts on pedestrian, bicycle, and transit circulation; safety for all modes; and adequate transportation demand management strategies;

3. The proposed use will not significantly alter the overall industrial character of the area, based on the existing proportion of industrial and non-industrial uses and the effects of incremental changes;
4. The proposed use needs to be located in an industrial area or building because industrial firms or their employees constitute the primary market of the proposed use; and
5. City-designated scenic resources are preserved.

The zoning code also includes specific approval criteria for residential use. These approval criteria allowing residential uses in limited situations where they will not interfere with industry. Residential uses in these zones are only protected from nuisance impacts, including noise, to the same standard as other allowed uses. The criteria for residential uses in the industrial zones include:

1. The transportation system is capable of supporting the proposed use in addition to the existing uses in the area. Evaluation factors include street designations and capacity, level of service or other performance measures; access to arterials; connectivity; transit availability; on-street parking impacts; access restrictions;
2. City-designated scenic resources are preserved; and
3. The proposal is for houseboats or houseboat moorages which will not interfere with industrial use of the waterway or with adjacent industrial uses; or

Portland's zoning regulations also include "plan districts" that are designated for specific areas to address concerns unique to an area when other zoning mechanisms cannot achieve the desired result. Plan districts provide means to modify zoning regulations for specific areas as defined in special plans. Each plan district has its own nontransferable set of regulations.

In general Portland's industrial zoning regulations and conditional approval processes are very similar to Seattle's. Portland's industrial zones differ from Seattle's in that some industrial zones (IG1, IG2, and IH) allow residential uses with conditional approval, whereas Seattle prohibits them outright. Both allow institutional uses (conditionally) in industrial areas.

According to City staff, Portland has had restrictive "industrial sanctuary" zoning since 1980, currently about 15,000 acres, which does not allow residential uses and allows only small-scale commercial/office space. About 1,800 acres along Portland Harbor are further reserved for river-dependent and river-related industry. In 2004, the City created a harbor industrial urban renewal area to support industrial retention and expansion and brownfield redevelopment.

The City is currently preparing a Working Harbor Reinvestment Strategy. It is a 10-year program of coordinated public investments by the City of Portland, the Portland Development Commission, and the Port of Portland in land (urban renewal, brownfields, port terminals), labor (workforce development), and infrastructure (streets, rail, channel, sewer, water). The goals of the strategy are to stimulate private industrial investment and coordinate capital investment by the City and other regional agencies (City of Portland, 2007).

Portland has also adopted a Freight Master Plan (2006) that recommends a slate of freight industry investments. Construction of a new Airport Way and extension of light rail to the airport has stimulated mixed industrial development there.

**Vancouver, BC.** In 1995 Vancouver adopted an Industrial Lands Strategy (City of Vancouver, 1995) and approved a work program to update industrial zoning in the city. The Strategy provides specific policies for each of the City's seven industrial areas. The overall intent of the strategy is to retain most of the existing industrial land base for industry and service businesses that meet the needs of port/river-related, city-serving, and city-oriented industries.

The strategy focuses on zoning changes including increasing the allowable floor area for service industrial uses, revising height and bulk standards to be compatible with nearby residential uses, updating industry definitions to better accommodate service businesses, and revisions to conditional use provisions to limit which uses can be located in industrial zones, and changing industrial zoning from heavy industrial to lighter industrial depending on neighborhood needs. City staff also indicated that the City is not allowing rezoning of industrial properties, despite ongoing land speculation.

The City of Vancouver regulates land use through its zoning and development by-laws. The by-laws establish ten industrial districts. Each district carries its own schedule of regulations that include a statement of intent, uses approved outright, conditional uses, and relaxation of regulations which may be permitted in the district schedule. The ten industrial districts include three basic categories, which include the following:

- **MC-1 and MC-2:** These districts are mixed-use areas, with residential, commercial and light industrial uses permitted. Emphasis is placed on building design that furthers compatibility among uses, and contributes to area character and pedestrian interest. The MC-2 District differs from the MC-1 district in limiting dwelling uses in areas adjacent to a heavy impact industrial zone.
- **M-1, M-1A, M-1B, M-2, and I-2:** These districts permit industrial and other uses that are generally incompatible with residential land use but are beneficial in that they provide industrial employment opportunities or serve a useful or necessary function in the city. It is not the intent, however, to permit uses that are potentially dangerous or environmentally incompatible when situated near residential districts. In the M-1B district certain commercial and office uses are permitted as either outright or conditional uses, the type and scale of non-industrial uses is restricted.
- **IC-1, IC-2, I-1, and I-3:** These districts permit light industrial uses that are generally compatible with one another and with adjoining residential or commercial districts. It is also the intent to permit advanced technology industry, industry with a significant amount of research and development activity, and commercial uses compatible with and complementing light industrial uses. The I-1 district does not permit office or retail uses. The I-3 district is specifically meant to permit high technology industry, and industry with a significant amount of research and development activity.

Vancouver's by-laws allow a much broader mix of uses within some of its industrial districts than Seattle's zoning code. In particular, Vancouver's MC-1 and MC-2 allow residential, commercial, and mixed uses along side light industrial uses. Seattle currently does not allow residential uses in its industrial zones.

**San Francisco, CA.** According to City staff, interim zoning controls, interim zoning policies, and zoning that specifically address the needs of industrial businesses have all been developed. In the last several years, interim zoning controls and policies have both been used to control industrial land while final zoning is being completed. City staff expect the rezoning to be completed early next year, 2008.

The proposed final zoning for land currently zoned industrial includes districts that regulate uses (such as housing and office) that can out-compete industrial businesses and smaller start-up firms. The goal of the zoning for these areas is to protect existing viable industrial businesses, allow for their expansion, while providing lower-cost incubator space for emerging industries. Because zoning regulations have not been finalized yet for industrial lands, they are not discussed in detail here.

**Los Angeles, CA.** The City is currently developing an industrial development policy initiative to discontinue case-by-case review of industrial conversions. The policy will restate the City's earlier citywide policy of preserving industrial lands and will identify the industrial areas worth or not worth preserving. The City has divided the process into three phases.

To date, the City has completed the first two phases. Phase I developed a report titled Key Industrial Land Use Findings and Issues (City of Los Angeles, 2004). The report provides a detailed description of the City's existing industrial land base, a summary of industrial policies in other cities, and a list of policy implications of the report. Based on the results from the first phase, Phase II provides numerous policy recommendations for industrial lands development, industrial lands infrastructure, industrial business, and industrial workforce (City of Los Angeles, 2005).

The zoning code of the City of Los Angeles regulates the permitted uses in industrial areas. Most of the zoning categories have sub-zones with either special use restrictions or qualifications. Land included in the City's industrial zones is categorized in six zoning classifications; these include, from least restrictive to most restrictive, CM (commercial manufacturing), MR1 (restricted industrial), M1 (limited industrial.), MR2 (restricted light industrial), M2 (light industrial.), M3 (heavy industrial).

A key feature of the City's zoning code is inclusiveness. Each successive classification generally includes permission to develop uses in the previous classifications. In some cases, a conditional use permit (CUP) may be required, but the zoning code permits the application and processing of CUPs and of less restrictive uses within most zones. Thus, a multi-family, retail, or commercial development project may be built in a CM or M zone, while a residential development would generally meet more scrutiny and disapproval in a heavy industrial area. According to the Industrial Development Policy Initiative for the City of Los Angeles Phase 1 Report (City of Los Angeles, 2004) the zoning code's current inclusive nature, when combined with market forces, tends to encourage non-industrial uses in industrial zones.

Approvals of plan amendments and zoning changes are currently on hold until the policy changes are adopted. While, the general structure of the Los Angeles' zoning code and the allowed uses in industrial zones are similar to Seattle, phone interviews with City staff indicated that zoning changes allowing non-industrial uses have been much more common in Los Angeles. One of the goals of the City's current planning effort for industrial areas is to reverse that trend.

**Chicago, IL.** According to City staff, Chicago has 24 Industrial Corridors and 14 Planned Manufacturing Districts (PMD). Industrial corridors are planning areas that are historically industrial. PMDs are zoning designations and are located within Industrial Corridors, although not all industrial corridors have PMDs.

The PMD is an industrial zoning classification (City of Chicago Zoning Ordinance 17-6-0401) that prohibits specific uses such as residential development and retail, which could potentially conflict with industry. Conceptually, these areas differ from traditional zoning districts because, instead of being comprised of individually zoned parcels subject to requests for re-zoning, they are contiguous areas with a single regulatory regime that cannot be reviewed on a case-by-case basis. PMD's prevent piecemeal, parcel-by-parcel zoning changes that can, over time, undermine the stability of industrial areas. Once a PMD is designated, no zoning changes may occur and nothing may be removed from within the boundaries.

Each PMD district has a distinct list of allowed uses. Nonconforming properties in a PMD can only be replaced by allowed uses. Any proposed change of use from manufacturing to an acceptable use must be reviewed by the Zoning Board of Appeals. PMDs can be proposed by the Mayor, local Alderman, or landowners within the area. PMDs must be at least five contiguous acres in size (Chicago Zoning Ordinance, 17-6-0401-B). Applications are reviewed by the zoning administrator, Commissioner of Planning and Development and the Planning Commission. The Planning Commission and City Council must hold public hearings on each application. The City Council is the final decision-making body on PMDs and PMD amendments.

The PMDs offer an effective and relatively simple means of combating the conversion of industrial lands to non-industrial uses. The PMDs provide additional regulations for specific areas much the same as traditional overlay districts, but they also tie the properties together, so that individual rezones are not allowed without approval from the Zoning Board of Appeals. The City believes that the predictable zoning environment of a PMD encourages businesses to locate in the area and make long-term investments in their facilities because they know they can continue to operate. Likewise by establishing the districts, the PMD motivates owners of vacant or underutilized sites to develop their properties for industrial use instead of speculating on future zoning changes.

Chicago also provides a number of financial incentives. Tax Increment Financing (TIF), a tool enabled by the State, is used extensively. A Tax Increment is the difference between the amount of property tax revenue generated before a TIF district is created and the amount of property tax revenue generated after the TIF district is created. Prior to a TIF designation taking effect, a "snapshot" is taken of current tax collections and the amount allocated to each taxing body (schools, parks, county utilities) is frozen at that level. Any increase in taxes collected within the boundaries of the TIF district can be used to fund improvements and new development for the life of the TIF, usually 23 years.

Revenues (increments) are generated if new development occurs in the districts, or if the value of existing property rises, resulting in higher appraisals. The increase in the amount of taxes generated can be used to fund needed public improvements such as repairs to streets, sidewalks, and sewer systems, and beautification programs like lighting and streetscaping. TIF funds are also used as incentives to attract new businesses and retain existing businesses or help them expand. TIF are reviewed by the planning commission public hearing and are approved by the City Council.

The City also has small programs that help with business retention such as the plant optimization study and TIF Works, which is a 50/50 match for job training.

The City also has contracts with local industrial councils, non-profits that are responsible for each of the industrial corridors. They are intended to reach out to the industrial companies and alert the City to issues that make it difficult to do business and advocate for infrastructure. The industrial councils prepare Chicago Trend Report surveys, which give a comprehensive view of industrial companies in the city.

**Minneapolis, MN.** The City is currently considering an Industrial Land Development Policy, which could include the following:

1. Clearly defined Employment Districts.
2. Revised Minneapolis Plan to clarify that Industrial Business Park Opportunity Areas are prioritized for industrial use.
3. Clearly defined boundaries of Industrial Business Opportunity Areas in the Minneapolis Plan.
4. Establishment of Employment Districts to provide geographical boundaries in the Industrial Business Opportunity Areas. Specific geographical boundaries will clarify that industry is the priority land use and uses that impede industrial businesses should not be permitted. The proposed boundaries would designate 2,193 acres for continued industrial use, which represents 55% of industrial-zoned acreage and 70% of industrial-used land in 2004.

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

Industrial zoning in the City is separated into three districts, which designate differing intensity levels of industrial uses. These are I1 (light Industrial), I2 (medium industrial), and I3 (general industrial). The medium industrial district allows the widest range of industrial uses of the three districts, According to the City’s Industrial Land Use and Employment Policy Plan Technical Report (2006), heavier industrial uses included in the general industrial district tend to be relocating away from the urban core. No residential uses are allowed in any of the industrial districts. Educational facilities such as K-12 schools (I1 and I2) and vocational schools (all industrial districts) are allowed as conditional uses in industrial districts. The three industrial districts are described as follows:

**I1 – Light Industrial District:** This district regulates low impact uses which produce little or no nuisance or other objectionable influences, and which have very little adverse effect on surrounding properties. No processing of raw materials or production of primary materials is allowed in the I1 District. Some examples of uses allowed in the Light Industrial District are: fabric products, computers/electronic accessories, household appliances, medical/optical goods, paper products & publishing (no mills), health & beauty products, sporting goods.

**I2 – Medium Industrial District:** The Medium Industrial District includes most uses allowed in the Light Industrial District as well as metal working, glass and other uses which have the potential to produce greater nuisances or other objectionable influences than light industrial uses and which may have an adverse effect on surrounding properties. Medium industrial uses may include processing of raw materials or production of primary materials. Some examples include: electrical equipment & machinery (motors, generators, heating & cooling, etc.), fabricated metal, plastic, glass & rubber products (except tires), ceramics, china, dishes, etc., gypsum/plaster products, latex paints, lumber products/plywood, metal working.

**I3 – General Industrial District:** Uses regulated in the General Industrial District include “high impact and outdoor uses which are likely to have a substantial adverse effect on the environment or on surrounding properties and which require special measures and careful site selection to ensure compatibility with the surrounding area.” Processing of raw materials and production of primary materials are often included in this district, as is transportation, public service and utility services. These general industrial uses include, but are not limited to, the following: asphalt & roofing materials, battery manufacture/reprocessing, chemicals & chemical products, oil-based paints, etc., petroleum/coal products (no mining), primary metals (steelworks, rolling, foundry), sand and gravel (no mining), stone, concrete products (cement, bricks), tires & inner tubes

The Minneapolis Zoning Codes also contain provisions for an Industrial Living Overlay District (IL). The purpose of overlay districts in the City of Minneapolis is specific to each overlay district. Property located within an overlay district is subject to the provisions of both the primary zoning district and the overlay district. The regulations of the overlay district govern those in the primary underlying district if the two are in conflict. The Industrial Living Overlay District was “established to encourage the rehabilitation and reuse of existing industrial structures and to provide for limited residential and retail uses in the I1 and I2 Industrial Districts where such uses are compatible with other uses in the area.”

In general Minneapolis industrial zoning regulations are similar to Seattle’s. Unlike Seattle, Minneapolis has identified areas that the City would like to transition from industrial to non-industrial. The Industrial Living Overlay District is one mechanism to achieve this goal. Several non-industrial uses are allowed in the Industrial Living Overlay District including retail, office and entertainment. Dwelling units and supportive housing are allowed as conditional uses in the Industrial Living Overlay District, subject to design and safety conditions.

In addition to regulatory mechanisms, City staff indicated that, the City currently provides non-regulatory, incentive-based programs to retain industrial businesses. These include market-rate financing, real estate site search assistance, pollution prevention grants, and workforce training in conjunction with state educational partners.

**Boston, MA.** Boston’s zoning establishes five types of base industrial districts, Light Manufacturing (LM), Restricted Manufacturing (M), General (I), Maritime Economy Reserve (MER), and Waterfront (W). The MER and W districts are specifically established for water-dependant and water-related industrial uses. The code regulates uses in each of the districts by allowing, conditioning, or forbidding uses in each. Single-family residential land uses are forbidden in all the industrial districts. Multi-family uses are conditional in the restricted and waterfront districts. Retail businesses, eating places, and cafes,

office, and service businesses are allowed in the M and I districts, conditional in the W and forbidden in the MER. Wholesale business and storage is forbidden in the MER, but allowed in the others. Light Manufacturing is regulated through a separate chapter that provides a list of allowed, conditional and forbidden uses.

The City's zoning code also divides the city into neighborhood districts, each of which provide additional regulations of land uses in the base zones as well as dimensional regulations for structures and uses in the specific districts. The zoning code also provides for special purpose overlay districts, which can encompass a contiguous group of properties. In the overlay districts the regulations of the underlying zoning still apply in addition to the regulations carried by the overlay district.

Conditional uses are granted by a board of appeals on a case-by-case basis after issuance of a public notice and a public hearing. All approved conditional uses in the industrial area would have to conform to the following conditions:

1. The specific site is an appropriate location for such use or, in the case of a substitute nonconforming use, the new nonconforming use will not be more objectionable nor more detrimental to the neighborhood than the nonconforming use for which it is being substituted;
2. The use will not adversely affect the neighborhood;
3. There will be no serious hazard to vehicles or pedestrians from the use;
4. No nuisance will be created by the use; and
5. Adequate and appropriate facilities will be provided for the proper operation of the use.

The Board of Appeals, in approving a conditional use, may attach additional conditions and safeguards as it deems necessary to assure harmony with the general purposes and intent of the zoning code. According to the code these include, but are not exclusive of, the following:

1. Requirement of front, side, and rear yards greater than the minimum required by this code;
2. Requirement of screening of parking areas and other parts of the lot from adjoining lots or from the street, by walls, fences, planting, or other devices;
3. Modification of the exterior features or appearance of the structure;
4. Limitation of size, number of occupants, method and time of operation, and extent of facilities;
5. Regulation of number, design, and location of access drives and other traffic features; and
6. Requirement of off-street parking and other special features beyond the minimum required by this or other applicable codes or regulations.

Boston's zoning regulations are similar to Seattle's in terms of allowed, prohibited, and conditional uses in industrial areas. Boston does not allow residential uses, but does allow some retail, and office uses. In general, Boston's code is more complicated in that it includes base zoning, overlay districts, and neighborhood districts, all of which carry varying regulations. Boston's code also differs from Seattle in its treatment of the waterfront businesses. It applies more specific regulations for waterfront uses by establishing special base zones for waterfront industrial areas through its W and MER zoning districts.

In addition to the regulations contained in the City's zoning code, City staff provided several examples of incentive based programs during a phone interview. The Boston Local Development Corporation (BLDC) is a private 501(c)(3) non-profit Corporation administered by staff of the Boston Redevelopment Authority of the City of Boston. The BLDC provides loans of up to \$150,000 for businesses in or relocating to the city of Boston. These loans can be used when buying a new business property, purchasing equipment and machinery, constructing an addition to an existing plant, making leasehold improvements or providing working capital to grow a business. The BLDC actively pursues loan participations with local banks.

The BLDC also administers the Back Streets Back-up Loan Program, which is intended to support businesses through real estate assistance, workforce training, business assistance, and resources and partnerships. It is meant to help businesses locate in the city and provide low interest-rate loans to qualified businesses.

The BLDC administers tax-exempt industrial development bonds (IDB's). These are issued to acquire land and construct new facilities, expand/renovate existing facilities or purchase new equipment. Projects eligible for tax-exempt financing are manufacturing facilities that create tangible products, cogeneration or small power facilities for furnishing local energy or gas and solid waste/resource recovery facilities. These projects often have a strong job creation/retention component.

The BLDC also administers tax-exempt enterprise zone facility bonds (EZ Bonds). These are a new type of tax-exempt private activity bond that can be used by a qualified business to finance the cost of commercial, retail or similar facility used by the borrower. The borrower must be an "Enterprise Zone" business, and 95 percent of the proceeds from the bond issue must be used to finance "qualified zone property."

Economic development plans have been adopted for each of the City's industrial zones to identify land use, circulation, business and workforce services, image development, and infrastructure improvements.

**Philadelphia, PA.** Philadelphia regulates its industrial lands through nine industrial zoning districts, each with distinct regulations on uses and design. These include Limited Industrial (L-1 – L-5), General Industrial (G-1 and G-2), Least Restricted Industrial (LR), and Port Industrial.

The Limited Industrial Districts (L-1 – L-5) allow medium intensity industrial uses. They also all allow office. The districts differ from each other by the allowed lot coverage and floor areas. Allowed lot coverage ranges from 35 to 100 percent and floor areas range from 70 to 500 percent. The L-4 and L-5 districts also allow all of the commercial uses that are allowed under the City's commercial districts. None of the Limited Industrial Districts allow residential uses. The following are examples of the allowed uses in the Limited Industrial Districts (L-1 – L-5):

- Bottling, canning and/or distribution; cinema, radio, and television studio;
- Die cutting, pressing and molding, printing and embossing;
- Distribution plants, parcel delivery, cold storage plants, and food commissaries;
- Drying, dehydrating and/or packaging of fruits and vegetables;
- Utilities, transportation, and public services facilities;
- Laboratories (analytical, chemical, and research);

- Manufacturing of Apparel, Bread and other bakery products; Butter and cheese, Candy and chocolate, Rope Drugs, Electrical measuring instruments, Engineering, laboratory, scientific and research instruments, Paper products (from purchased paper), Jewelry, Statuary and art goods, Typewriters, computing and accounting machines, and other office machines;
- Offices and office record storage;
- Printing, publishing, and allied arts and trades;
- Repair of any products permitted to be manufactured or produced in the district; and
- Storage buildings and warehouses.

The General Industrial (G-1 and G-2) districts allow more intensive industrial uses. These districts also allow all uses that are allowed in the L-3 district. No residential uses, hospitals, hotels, or theaters are allowed in these districts. The following are examples of the allowed uses:

- Brewing, Canning
- Killing, dressing, packing and canning poultry, rabbits, and other small game
- Sale of live poultry, live fish, or live animals for human consumption;
- Laundry and dry cleaning;
- Lumber yards; coal yards; building materials storage;
- Manufacture of: Aircraft, Apparel Cleaning preparations, Electric motors and generators, carbon and graphite products, electrical equipment, Fabricated metal products, Firearms, Furniture, Glass, Leather goods, Locomotives, railroad cars, rapid transit vehicles, Machinery, Plastic articles Wines, brandy and brandy spirits;
- Mixing and blending of paving materials
- Painting, Paper coating and glazing;
- Sawmills, Stone cutting
- Sugar or salt refining or finishing;
- Textile mills
- Tire vulcanizing
- Trucking and railroad freight terminals, yards, sidings and shops;

The least restricted industrial (LR) district allows the most intense industrial uses and prohibits residential uses as well as hospitals, libraries, hotels, or theaters are allowed in these districts. The Port Industrial District allows only uses associated with the port including docks, wharves, piers, used in connection with the transfer, storage-in-transit and incidental processing of cargo from or to waterborne craft.

Philadelphia's industrial zoning regulations are very similar to Seattle's with slight variations in their list of specific uses. While neither Seattle nor Philadelphia allows residential uses, Philadelphia does allow a broader spectrum of commercial uses in its industrial areas.

According to City staff the City also offers numerous non-regulatory, incentive based programs aimed at retaining industrial businesses. Any business property owner making land or building improvements can apply to receive a 10-year City real estate tax abatement on 100% of the value added by their improvement, upon completion of construction.

The Job Creation Tax Credit offers businesses a one-time credit of \$1,000 for each new job, applied to total Business Privilege Tax liability. A business must create at least 25 new jobs or increase its full time employment by at least 20% within five years from a negotiated start date. Tax credits are granted only after new jobs are created, and a business must commit to maintain operations in the city for five years

after the credits are initially issued. New jobs are defined as full-time jobs with an hourly rate, excluding benefits, of at least 150% of the federal minimum wage.

A loan assistance program offered by the State Department of Commerce offers a variety of loan programs for businesses starting up, locating to, or expanding in Philadelphia through the City's delegate agencies, the Philadelphia Industrial Development Corporation (PIDC) and the Philadelphia Commercial Development Corporation (PCDC). These loans are funded by federal, state and local government sources, and are usually leveraged with private debt and equity. Loan funds at PIDC are allocated for activities that may include real estate acquisition, construction, or machinery/equipment purchase, while funding from the PCDC addresses the needs of small business. Although specific terms and conditions vary, most loan programs offer below-market rates that are intended to encourage investment in Philadelphia.

The Philadelphia Workforce Development Corporation (PWDC) is a private nonprofit organization offering comprehensive employment and training programs. PWDC provides companies with recruitment and referral services as well as customized and on-the-job training for new employees at no cost to the employer.

The Urban Industry Initiative (UII) provides proactive outreach and comprehensive business assistance to manufacturers in the lower Northeast and lower Northwest sections of the city. These areas include 425 manufacturing businesses, representing over 22,000 jobs. The UII has focused on a wide range of business concerns, and has targeted specific neighborhoods through a calling program to deliver a broad set of business assistance resources, build connections among companies, and address the "external" issues (crime, trash, and graffiti) that drive out businesses. These pieces come together as a unified retention strategy that strengthens businesses and neighborhoods.

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