NORTHWEST

SWAN ISLAND/LOWER ALBINA

RIVERGATE

AIRPORT

INNER EASTSIDE

COLUMBIA CORRIDOR EAST

BANFIELD

OUTER SOUTHEAST

Industrial Districts

PORTLAND, OREGON

2004 Atlas

CITY OF PORTLAND, OREGON BUREAU OF Planning

PDC PORTLAND DEVELOPMENT COMMISSION

RIVER RENAISSANCE

Freightliner Corporation, a truck manufacturer, is the largest employer at Swan Island. High-wage, blue collar jobs are one of the enduring strengths of Portland's quality of life.

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Table of Contents

List of Maps

Introduction

Why an Industrial Districts Atlas?

Portland's industrial districts are unknown territory to most residents. This atlas was chosen as a tool to make these districts more widely accessible and understandable. A combination of maps, numbers, text and images is used to give a broad description of each district and appeal to readers who prefer one media over another. Maps, however, are the heart of the document. They reveal at a glance how many aspects of a place fit together and provide a detailed context that one can come back to repeatedly as a reference. The intended audience is the community, to better understand this less visible part of the city; industrial businesses and developers, to make more informed investments; and policy makers, to respond to the needs of these critical places to the local economy.

Industrial districts are functional, utilitarian parts of the city. They provide a place for much of a its "traded sector" activity, such as factories and interregional distribution facilities, which bring income into the region and make up its economic base. They also provide a place for locally serving industrial functions, such as utilities, local distributors, construction yards, and various industrial services. And industrial jobs provide an important entryway into the middle class for many city residents.

How does a healthy, resilient industrial district look and function? How do industrial districts differ? What factors influence the mix of industries in a district? What is the capacity for growth in a given district? The recently completed inventory of Portland's 15,500 acres of industrial land offers a broad information base to explore these questions. Also, Portland has been an exception to the recent pattern of urban industrial decline in many large U.S. cities as global competition has expanded. As a result, Portland in 2004 offers a fortunate opportunity of time and place to understand urban industrial districts. Industrial jobs grew by 37 percent in the Portland metro area (Oregon portion) between 1980 and 2000, compared to 12 percent growth nationwide. While manufacturing jobs declined in the U.S. by 9 percent during these decades, they increased by 18 percent in the metro area. Most of this growth, especially in high tech manufacturing and wholesale trade, has occurred in the expanding outer parts of the region where more vacant land is available. Still, the City of Portland is the diverse and heavy industrial core and distribution hub of the metro area.

How We Got Here

A wealth of recent research has shed light on the region's industrial areas. Extensive geographic information system (GIS) data has been made available by Metro and Portland's Corporate GIS program. Local clusters of firms in the distribution/logistics, metals, transportation equipment, and high tech industries have been identified and explored (Institute of Portland Metropolitan Studies, 1999; ECONorthwest, 2002; Martin Associates, 2001 and 2003). The regional industrial land supply and demand have been analyzed and estimated (Otak, 1999 and 2001; Metro, 2002). Growth of freight tonnage handled in the region has been projected by mode (DRI-WEFA, 2002). And the needs of some specific industrial areas in Portland have been studied through River Renaissance and area planning projects (Portland Bureau of Planning, 2001 and 2003; E.D. Hovee & Company, 2003).

This atlas builds on these precursors and particularly on the *Citywide Industrial Land Inventory Assessment* completed in 2003 for the Portland Development Commission. That project consisted of a citywide inventory of industrial land (industrial and general employment zones and corresponding Comprehensive Plan areas) by the Bureau of Planning, a 20-year forecast of industrial land absorption by ECONorthwest, and development feasibility case studies on 37 vacant or underutilized sites, including 20 sites added this year, by Group Mackenzie. The inventory was extensively refined and updated to develop this atlas. Refinements in site boundary determination, facility types, and vacant land classification are described in Chapter 3.

What the Atlas Is and What It Is Not

The atlas presents a snapshot in time. While giving an impression of the way things are, it actually peers into a dynamic industrial system. Some aspects are changing quickly, while others have looked similar for decades. County and metro area employment trends are briefly cited for context, but comparable historical data is not available for most of the information presented here at the site and district levels. The atlas does provide a baseline of information that potentially can be repeated in the future to analyze trends among districts and types of sites.

The atlas reflects a methodology for organizing data. It presents over a year of work compiling and developing data

sets that are linked to each site in the city's industrial districts. However, it masks many details that make each site different, and the data it draws from is limited. A balance is intended between case-by-case ground-truthing to describe such details and a sound methodology that can be replicated objectively and repeated in the future to analyze trends.

The atlas is primarily a set of maps. It emphasizes land and geography and does so at a district level. Other critical dimensions of the industrial system, such as output, labor, organizational strategy, and freight flows are described in other documents and given less attention here. Additionally, the region and nation are basic levels of economic geography that get less emphasis in the atlas, in order to focus on the most descriptive data available at the site level. The result is intended to shine new light on this core feature of the city and the industrial system.

How to Read This Atlas?

Organization of the Document

The main body of the atlas is Chapter 2, a description and series of maps of the city's eight industrial districts. Chapter 1 describes the citywide industrial land supply, aggregating the district information of Chapter 2 and presenting it in more detail. Chapter 3 summarizes the primary methodological steps of the atlas and lists data sources, references, and a glossary of terms used.

A 20-Minute Tour

Start with the citywide map on pages 6-7 that depicts the industrial districts in context and the largest industrial employers. The typology of "How Districts Differ" on pages 10-11 suggests the general structure of the city's industrial areas. The half-page summaries at the beginning of each district section in Chapter 2 describe the character and features of the eight districts. And the facilities map in each district section depicts the land use pattern (focusing on general types of industrial facilities), the freight transportation system, and a "figure ground" delineation of structure footprints.

Where to Look if I Don't Understand Something?

1. The footnotes in the tables and the Information Sources section of each map are intended to clarify the most commonly asked questions.
2. The glossary on page 111-112 describes most of the terms used, including the column headers of tables.
3. The layouts of several tables are described on this and the next page.
4. A table of information sources used is on page 109. Chapter Three also includes a detailed description of the steps used to determine the inventory area, sites, facility types, and categories of vacant land.
5. Three maps are presented of each district, showing aerial photos, land use patterns, and the vacant land supply. If one map does not answer a question you might have about a site, look at all three together.

Understanding the Layout of Tables

Much of the information in the atlas is presented in tables, using the same format for each district. A few examples of selected tables are shown below to clarify the information presented.

ESTABLISHMENTS AND JOBS

This table shows the mix of industries in a district by how many businesses and jobs they represent.

NAICS is the North American Industrial Classification System, used here to identify the industries in each row.

Each establishment is an employer at a given address.

Total employment of the sector (or industry) within the district.

Average employer size (number of employees).

A breakdown of each sector's share of the jobs in the district, compared with that among all 8 districts.

A sector is a group of industries, such as manufacturing. The top half of the table breaks down the total jobs and establishments in a district by sector.

The bottom half of the table shows the number of jobs and establishments in the district's highest employment industries.

ESTABLISHMENTS AND JOBS, 2002

	NAICS	Establishments	Jobs/Establishment	Jobs	% of All Jobs in Area: District	% of All Jobs in Area: All Districts
All Sectors		892	27	23,938	100%	100%
Production & Raw Materials		225	25	5,693	24%	34%
Manufacturing	311-339	127	32	4,085	17%	25%
Construction	236-238	76	17	1,270	5%	8%
Highest Employment Industries						
Air Transportation	481	25	172	4,303	18%	4%
Wholesale, Durable	423	126	19	2,393	10%	9%

FACILITY TYPES

This table shows the mix of industries in a district by how many sites and acres they occupy.

Developed area is the portion of a site left after excluding land that is unimproved (vacant) or not available for development (open space).

Breakdown of the occupied, developed land in the district by facility type, compared with that in all 8 districts.

The number of sites and their total acreage in each facility type.

Average developed acres per site.

A facility type is identified for each occupied site, classifying it by the industry of its occupant or its primary use.

Occupied sites have a current tenant, and unoccupied sites do not.

Heavy industrial sites have large-scale operations or rail, runway or harbor use.

FACILITY TYPES

Facility Type	Sites	Total Acres	% of Occupied** Developed Area* Acres	Average Size	Developed Area District	Developed Area All Districts
Occupied Sites**	729	5,107	3,943	5.41	100%	100%
General Industrial	84	304	**257**	3.06	**7%**	17%
Manufacturing	50	242	199	3.97	5%	13%
Utilities	8	31	30	3.71	1%	2%
Construction	26	31	28	1.07	1%	2%
Unoccupied Sites	145	580	116	0.80		
Heavy Industrial	24	2,335	1,759	73.29	45%	48%

ENVIRONMENTAL CONSTRAINTS

This table quantifies the land area in the district affected by various environmental constraints.

Share of total district acres.

Open space in the atlas describes land that is generally not available for development, including particular zones, mitigation sites, public drainage facilities, and 10-year floodplain (Johnson Creek only).

The acreage affected by various constraints is quantified. Much of this area is affected by multiple, overlapping constraints. A composite acreage identifies land affected by any of the constraints shown.

The combined acreage that is either identified as open space or affected by the other constraints shown.

ENVIRONMENTAL CONSTRAINTS

	Acres	% of District
Open Space*	321	6%
Constrained Land (Composite)	1,315	23%
100 Year Floodplain	368	6%
Other 1996 Inundation Area	175	3%
Title 3 Wetlands	144	3%
10% or Greater Slope	40	1%
Goal 5 Significant Habitat	1,008	18%
Open Space or Constrained	1,344	24%

VACANT LAND

This table quantifies the vacant land area in the district and classifies this land by types of constraints.

Land on the market for sale, tracked by CoStar.

Vacant land in public or utility ownership, with some exceptions.

Buildable, private land (in blue) is the core of the vacant land supply. "Buildable" means that open space and partly buildable land (e.g. floodplain) are excluded. "Private" means that public and utility sites are excluded.

Tiers A-D identified by Metro address various availability and use constraints. Tier E is other buildable land.

Vacant land affected by floodplain, slope, wetland or habitat, except open space.

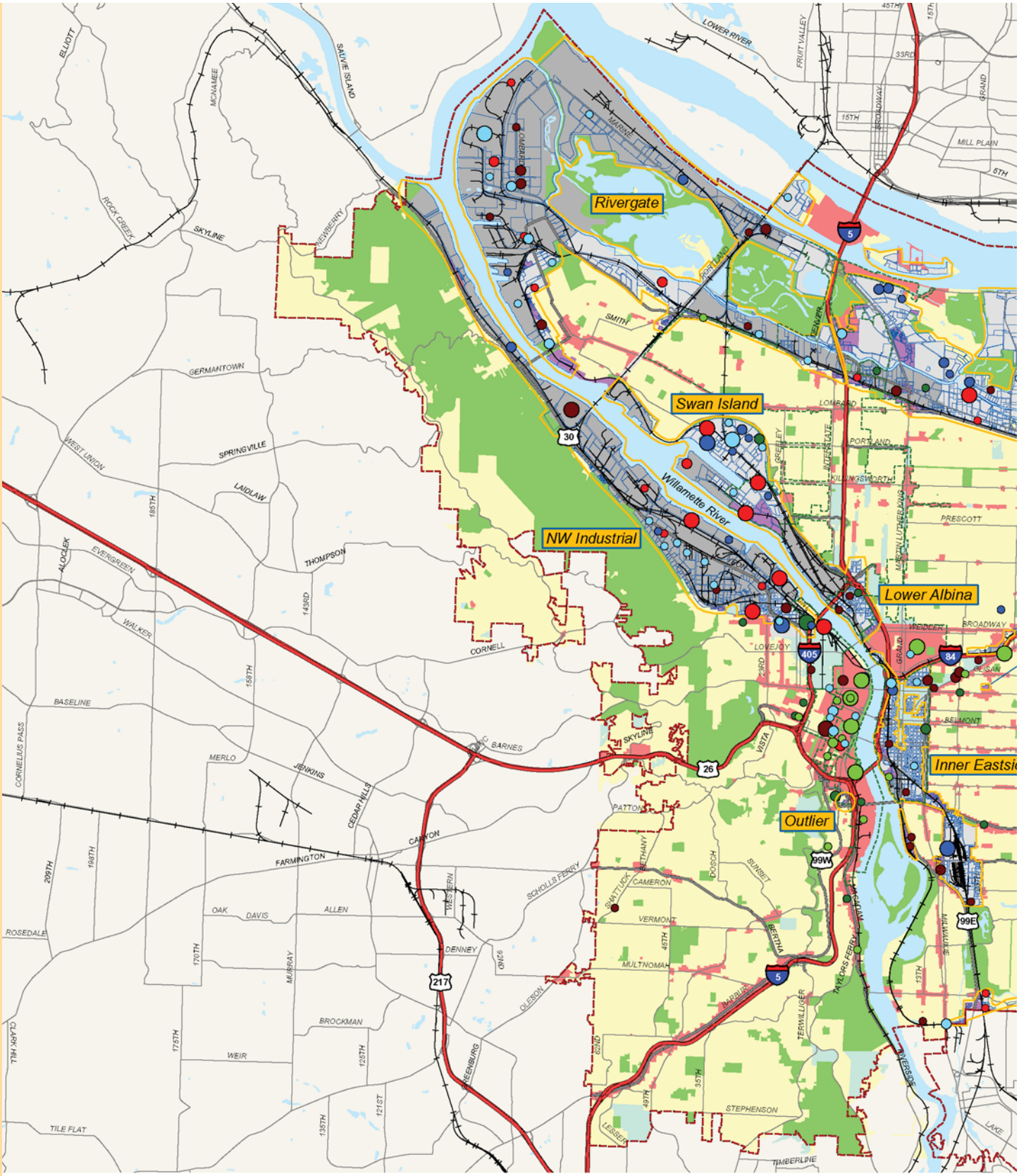
Vacant land is unimproved land identified by Metro from aerial photography. Unimproved outdoor storage areas are included.

Vacant land on sites where environmental cleanup or investigation is underway.

VACANT LAND (UNIMPROVED ACRES) 2002

	All Vacant Land	Buildable, Private Land* Total	Unconstrained Tier A	Buildable Tier B - E	Partly Buildable Tier F**	Public & Utility Sites	Land for Sale
All Vacant Sites	1,440	766	16.4	713.8	425.7	132.8	134.7
Potential Cleanup Sites	536	318	0.0	315.2	158.7	33.3	

Citywide Industrial Land Supply



Portland's Industrial Districts and Largest Industrial Firms

Employment: Industry / Size

Metals & Equipment Manufacturing
- 100 - 249 Employees
- 250 - 499 Employees
- 500 + Employees

Transportation
- 100 - 249 Employees
- 250 - 499 Employees
- 500 + Employees

Construction
- 100 - 249 Employees
- 250 - 499 Employees
- 500 + Employees

Other Manufacturing
- 100 - 249 Employees
- 250 - 499 Employees
- 500 + Employees

Wholesale
- 100 - 249 Employees
- 250 - 499 Employees
- 500 + Employees

Communications & Utilities
- 100 - 249 Employees
- 250 - 499 Employees
- 500 + Employees

Zoning

- Heavy Industrial
- General Industrial
- General Employment
- Open Space
- Commercial
- Residential
- Central Employment

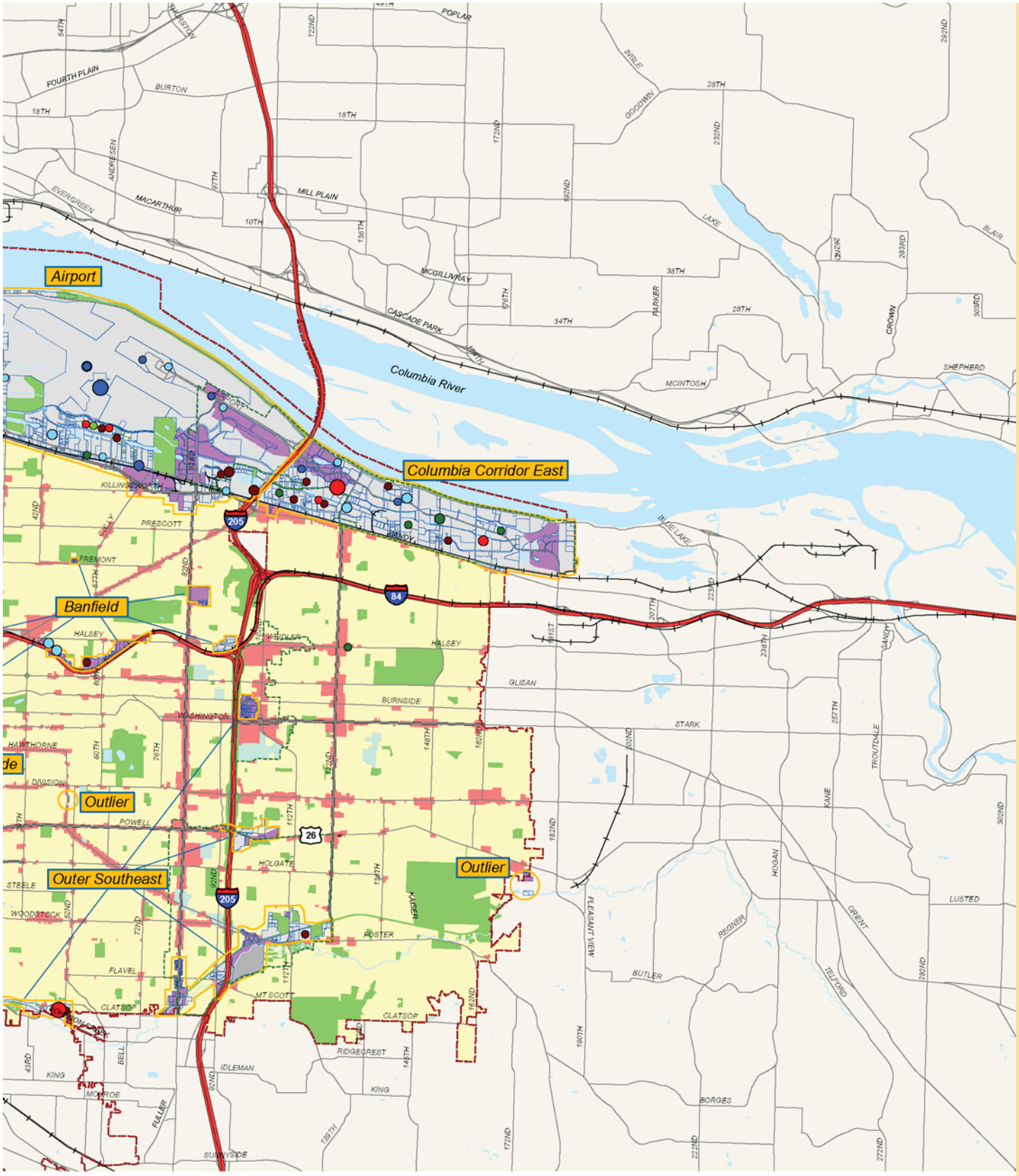
- City of Portland Boundary
- Urban Renewal Area Boundary
- Inventory Area Boundary
- Site Boundary

Transportation Infrastructure

- Railroads
- Freeways
- Major Truck Streets
- Streets

N

0 1,900 3,800 7,600 11,400 15,200 Feet



Information Sources:
- Sites - Bureau of Planning, based on taxlot information provided by City of Portland Corporate Geographic Information System and Multnomah County Assessment and Taxation (February 2003).
- Employers - Inside Prospects (2003).
- Zoning - Digitized from bureau zoning maps by Roy F. Weston, Inc. for the Bureau Planning. Registered to taxlots.
- Urban Renewal Boundary - Created and maintained by the Portland Development Commission (Updated April 2004).
- Railroads - Metro from 2000 Regional Transportation Plan.
- Truck Streets - Portland Office of Transportation from Transportation System Plan (2002).

- Information sources and methodology are described further in Chapter 3.

Investing in Portland's Future

PDC
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BUREAU OF Planning

CITYWIDE INDUSTRIAL LAND SUPPLY

A 150-YEAR INDUSTRIAL HISTORY

How did Portland become an industrial city?

1800

1850's

Portland originated as a seaport for Oregon's timber and grain exports to other regions. The city was sited at the farthest accessible point of inland navigation.

1900

Turn of the 20th Century

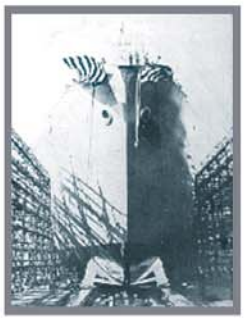
Portland's railroad connection to the east was completed in 1883 along the Columbia River, a sea level route through the Cascades which still rivals that of any West Coast city. Rail lines were completed to San Francisco in 1886 and to Seattle in 1909. The Port of Portland was created in 1891 to dredge the Columbia River channel from the ocean to Portland Harbor.

WWI and WWII

Wartime shipbuilding transitioned into enduring local industries in metals and equipment manufacturing. The City of Portland Commission of Public Docks began construction of Terminals 1-4 in 1920.

Postwar years

Columbia River and Columbia Slough dike construction made way for over 5,000 acres of industrial development in the Columbia Corridor. The Portland-Columbia Airport was completed in 1940 on the site of today's Portland International Airport (PDX).



1964

The Port of Portland purchased 2,000 acres to be developed as Rivergate Industrial District.

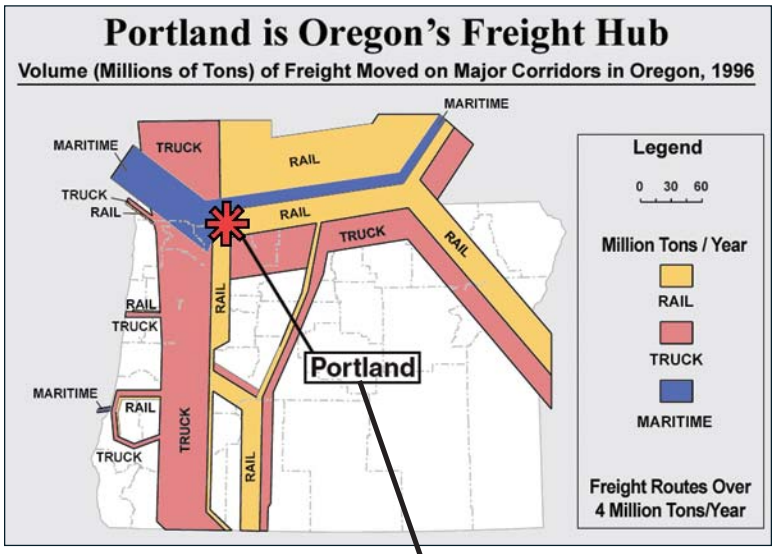
1980

A national leader in land use planning, Portland adopts industrial sanctuary policy and zoning.

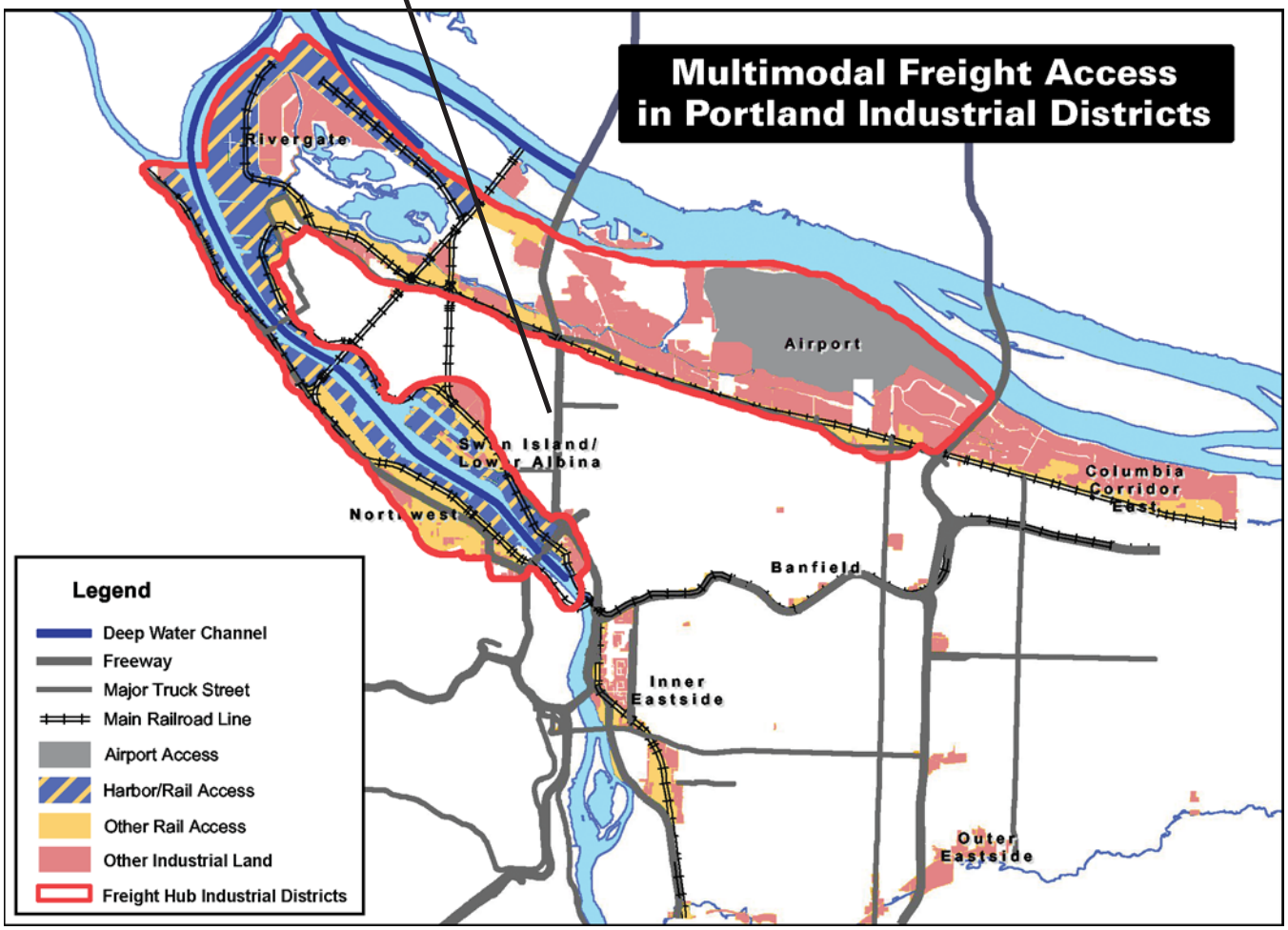
2000

PORTLAND'S FREIGHT ADVANTAGE

Advantageous freight access is one of the defining historical features of the city's industrial land supply. Portland is a West Coast seaport and distribution hub, like Los Angeles/Long Beach, the San Francisco Bay Area, and Seattle/Tacoma. These metro areas serve as gateways for international trade and as distribution hubs for the West Coast states. The adjacent map of Oregon depicts this distribution function. The lines on the map are the state's primary freight corridors and their widths represent annual tonnage of rail, truck, and marine cargo. The convergence of freight infrastructure in Portland—the seaport channel, the Upper Columbia barge routes, Oregon's two national railroads, its two interstate highways, the Olympic Pipeline, and Portland International Airport—comes together at the Portland Harbor and Columbia Corridor industrial districts.



Portland's legacy of freight infrastructure investments has key implications for its industrial future. For one, it would be very difficult to relocate this convergence of infrastructure that built up over a century, making Portland's harbor and Columbia Corridor districts uniquely advantageous locations for industrial land. Distribution and heavy products manufacturing have become major basic industries in these districts and the region. Portland appears to be well situated for continued growth in distribution activity, benefiting from increases in Pacific Rim trade and the expanding importance of logistics flexibility at multimodal hubs for the evolving distribution industry. Freight tonnage moving though the metro area is projected to double to 520 million tons between 2000 and 2030 (DRI-WEFA, 2002).



A TYPOLOGY OF DISTRICTS

How Do Portland's Industrial Districts Differ?

Portland's industrial districts span 15,500 acres. To describe this varied industrial land supply, eight districts are identified. They are geographically separate, except for the 11,000-acre Columbia Corridor industrial area that is separated into three districts, divided for simplicity by the I-5 and I-205 freeways. How do these eight districts differ? They generally fit into three types: freight hub districts, mixed industrial/employment districts, and dispersed areas. Each type differs in transportation access, site characteristics, and mix of industries.

Conclusions

Three types of districts stand out in Portland, indicating that their mix of industries, land use pattern, and regional infrastructure are closely interrelated:

- The freight hub districts centered along the harbor and airport comprise 80 percent (12,500 acres) of the city's industrial land. Heavy industrial facilities use 57 percent of that land.
- The Inner Eastside and Columbia Corridor East are mixed industrial/employment districts with nearly half of their jobs in service sectors.
- Small, dispersed industrial areas of varying character are also located along I-84, I-205 and Johnson Creek.

Freight Hub Districts

Portland's function as a West Coast freight distribution hub stands out as a defining feature of its industrial history and industrial land supply. This freight hub function is concentrated in the Airport, Rivergate, Northwest, and Swan Island/Lower Albina industrial districts. These 1,000+ acre districts are characterized by large shares of land area with marine, rail, or air access; heavy industrial facilities (rail, harbor, or runway usage, large-scale structures, or large outdoor maneuvering or storage area); and sites larger than 50 acres. Their leading employment sectors are transportation or manufacturing.

Airport is a 5,700-acre district, 47 percent of the land area with PDX runway access. Heavy industrial facilities use 45 percent of the occupied, developed land. Distribution firms provide 50 percent of area jobs.

Rivergate is a 4,050-acre district, 46 percent of the land area with harbor access and 61 percent with rail access. Heavy industrial facilities use 73 percent of the occupied, developed land. Manufacturing firms provide 50 percent of area jobs.

Northwest is a 1,700-acre district, 41 percent of the land area with harbor access and 67 percent with rail access. Heavy industrial facilities use 56 percent of the occupied, developed land. Manufacturing firms provide 44 percent of area jobs.

Swan Island/ Lower Albina is an 1,100-acre district, 38 percent of the land area with harbor access and 57 percent with rail access. Heavy industrial facilities use 51 percent of the occupied, developed land. Distribution firms provide 40 percent of area jobs.

Mixed Industrial/ Employment Districts

The Inner Eastside and Columbia Corridor East districts are characterized by high concentrations of service sector jobs and high jobs-to-acreage ratios relative to the other larger districts. They also have less land area in heavy industrial facilities and fewer sites larger than 50 acres.

Columbia Corridor East is a 1,700-acre district with 15 jobs per developed acre and 47 percent of its jobs in the service sectors. Only 7 percent of the occupied, developed land is in heavy industrial facilities.

Inner Eastside is a 630-acre district with 37 jobs per developed acre and 43 percent of its jobs in the service sectors. Only 20 percent of the occupied, developed land is in heavy industrial facilities (primarily Brooklyn Rail Yard).

SITE CHARACTERISTICS AMONG DISTRICTS

District	Acres	District Share	Average Site Size	50+ Acre Sites	Land Value/sq. ft. Avg.	Land Value/sq. ft. Sites >$6	Freight Access Rail	Freight Access Harbor	Freight Access Runway
All Districts	15,473	100%	4.3	41%	$4.67	18%	33%	19%	17%
Columbia Corridor	11,462	74%	7.1	48%	$4.40	11%	27%	16%	23%
Airport	5,686	37%	6.5	59%	$4.71	15%	5%	0%	47%
Columbia Corridor East	1,726	11%	4.9	5%	$4.56	10%	19%	0%	0%
Rivergate	4,050	26%	10.6	50%	$3.90	7%	61%	46%	0%
Inner City	3,406	22%	2.1	23%	$5.56	41%	60%	32%	0%
Inner Eastside	626	4%	0.7	9%	$9.68	73%	47%	1%	0%
NW Industrial	1,717	11%	3.5	27%	$4.99	34%	67%	41%	0%
Swan Isl./Lower Albina	1,063	7%	4.1	25%	$4.07	33%	57%	38%	0%
Dispersed Areas	605	4%	1.6	17%	$4.42	18%	8%	0%	0%
Banfield	117	1%	1.6	0%	$5.32	23%	25%	0%	0%
Outer Southeast	471	3%	1.7	22%	$4.13	17%	4%	0%	0%
Outliers	17	0%	1.4	0%	$4.59	16%	0%	0%	0%

INDUSTRY MIX AMONG DISTRICTS

District	Jobs*	District Share	Jobs/ Devel. Acre	Jobs by Sector* Mfg.	Constr. & Util.	Distri-bution	Services	Developed, Occupied Acres Heavy Industrial	Mfg.	Distri-bution
All Districts	101,389	100%	9	25%	9%	34%	32%	48%	13%	47%
Columbia Corridor	47,099	46%	6	24%	8%	39%	30%	50%	11%	48%
Airport	23,938	24%	6	17%	7%	50%	27%	45%	5%	47%
Columbia Corridor East	13,978	14%	15	19%	13%	21%	47%	7%	11%	12%
Rivergate	9,183	9%	3	50%	2%	36%	13%	73%	20%	62%
Inner City	48,664	48%	17	26%	10%	32%	33%	51%	20%	47%
Inner Eastside	21,761	21%	37	16%	11%	30%	43%	20%	12%	37%
NW Industrial	15,594	15%	11	44%	7%	28%	21%	56%	22%	53%
Swan Isl./Lower Albina	11,309	11%	13	21%	10%	40%	29%	51%	21%	45%
Dispersed Areas	5,626	6%	12	32%	12%	16%	41%	3%	9%	19%
Banfield	1,592	2%	18	7%	6%	28%	59%	0%	3%	23%
Outer Southeast	3,717	4%	11	45%	11%	11%	33%	5%	10%	18%
Outliers	317	0%	23	10%	49%	6%	34%	0%	9%	0%

* NAICS codes: manufacturing = 311-339; distribution = 481-493, 423-425; construction & utilities = 236-238, 221, 517, 562; services = 441-454, 511-928 except 517 and 562.

Source: Covered employment, Oregon Employment Department

Dispersed Areas

The Banfield and Outer Southeast districts are groupings of small industrial and employment areas along the I-84 and I-205 freeways and Johnson Creek. They have high concentrations of land in multi-tenant (flex space) facilities, less land in distribution facilities, and minimal land in heavy industrial use.

Banfield is a 120-acre district in four separate areas. None of the area is in heavy industrial facilities. Service firms provide 59 percent of its employment.

Outer Southeast is a 470-acre district in four separate areas. Only 5 percent of the occupied, developed land is in heavy industrial facilities. Manufacturing firms provide 45 percent of area jobs.

THE MIX OF INDUSTRIES

The 3,700 business establishments in Portland's industrial districts in 2002 employed 101,000 workers — 34 percent in the production sectors (manufacturing and construction), 34 percent in distribution (transportation and wholesale), and 32 percent in industrial and other services. Industrial districts are an important part of the economic base of regions, providing land for many "traded sector" businesses that compete in global markets and thus bring income into the region. For example, about 69 percent of the metro area's manufacturing output is exported out of the region, 37 percent of the transportation sector's output, and 33 percent of that in the wholesale sector (Hovee, 2003). Another major economic advantage of industrial districts is as a source of high-wage jobs that provide pathways into the middle class. Metro area manufacturers paid 130 percent of the average wage among all firms in 2002, and distribution firms paid 121 percent of the average.

What are Portland's industrial specialties relative to the region? Those with 50 percent or more of their metro area (Oregon portion of PMSA) employment in Portland's industrial districts are air transportation, transportation support activities, transit, couriers, primary metals manufacturing, and transportation equipment manufacturing. Other industries with 30 percent or more of their metro area employment in Portland's industrial districts are wholesale of durable goods, fabricated metal products manufacturing, truck transportation, food products manufacturing, and printing.

Portland's specialty industries tend to be anchored by a few large establishments. The primary metals and transportation equipment manufacturing industries have been described as having a "hub and spoke" structure with large, often locally headquartered firms that export most of their products outside the region and have numerous local suppliers (E.D. Hovee & Co., 2003). The Port of Portland has a comparable function in air and water transportation.

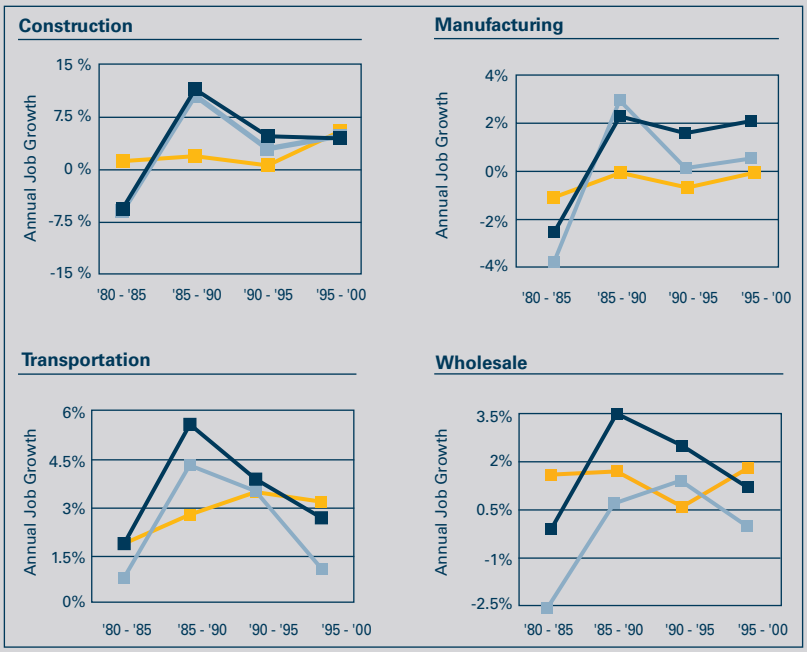
Conclusions

- The industrial districts contain a fourth of the city's jobs. A third of them are in production, a third in distribution, and a third in services.
- Industrial districts are a core location for "traded sectors" that make up a region's economic base. Portland's largest industrial specialties relative to the region are its 19,700 jobs in transportation (e.g. air, truck, courier, marine) and 12,500 jobs in metals, machinery, and transportation equipment manufacturing.
- Which sectors are industrial? Manufacturing and distribution are clearly concentrated in the city's industrial districts. Construction, utility, and industrial service jobs are more dispersed.

These industries are not an exhaustive list of the region's "industry clusters." Semiconductor and wood products manufacturing, for example, are regional specialties that are concentrated in suburban areas. Moreover, clusters include a linked group of suppliers, service providers, and support institutions that are classified in different industries. Clusters also overlap, making it less than accurate to identify them separately.

Which sectors tend to locate in industrial areas? Portland manufacturing firms have 84 percent of their employment in the industrial districts; transportation firms 77 percent, and wholesalers 73 percent. Other industrially related activities are less concentrated in industrial districts, such as construction (45 percent of city employment in industrial districts) and utilities (17 percent). A grouping of service industries labeled here as "rental and equipment" has 51 percent of its employment in the industrial districts. It includes repair, rental, industrial laundry, and building maintenance services.

INDUSTRIAL GROWTH TRENDS



Industrial employment in the Portland metro area (5-County Oregon portion of PMSA) grew by 37 percent between 1980 and 2000, three times as fast as the U.S. average of 12 percent. The distribution sectors created 46 percent of those new jobs, manufacturing 26 percent, and construction 28 percent. The metro area share of U.S. manufacturing jobs grew by 31 percent during this period (Bureau of Planning, 2003). The graphs show job growth rates by sector.

INDUSTRIES BY EMPLOYMENT

	NAICS	Establishments and Jobs, 2002 Estab-lishments	Jobs/ Estab.	Jobs	% of Jobs by Zone All	I	EG	Area share of City Jobs	Metro Jobs*	% of Avg. Pay*
All Sectors		3,712	27	101,389	100%	100%	100%	27%	12%	100%
Production & Raw Materials		1,049	33	34,816	34%	37%	22%	63%	20%	122%
Manufacturing	311-339	652	39	25,693	25%	27%	15%	84%	23%	130%
Construction	236-238	341	23	7,797	8%	8%	5%	45%	18%	117%
Utilities & Waste	A	46	25	1,165	1%	1%	1%	17%	11%	144%
Agriculture	111-115	10	16	161	0%	0%	0%	45%	1%	56%
Distribution		1,258	27	34,381	34%	39%	13%	75%	43%	121%
Wholesale	423-425	852	17	14,648	14%	16%	7%	73%	29%	138%
Transportation	481-493	406	49	19,733	19%	23%	5%	77%	66%	93%
Services		1,405	23	32,192	32%	25%	66%	12%	6%	91%
Information	B	44	18	776	1%	1%	1%	9%	5%	144%
Management	551	39	116	4,531	4%	3%	10%	39%	25%	165%
Rental & Maintenance	C	315	19	6,079	6%	6%	7%	51%		
Government	921-928	4	267	1,068	1%	0%	5%	6%	1%	105%
Retail	441-454	300	18	5,485	5%	5%	7%	17%	6%	65%
Training & Unions	D	58	47	2,722	3%	0%	14%	11%		
Financial	E	108	11	1,195	1%	1%	2%	4%	3%	139%
Professional	F	276	12	3,309	3%	3%	7%	8%		
Human Svcs.	G	49	56	2,768	3%	3%	2%	5%		
Leisure & Food	711-722	172	22	3,835	4%	2%	12%	11%	5%	42%
Other Services	H	40	11	424	0%	0%	0%	5%		
Highest Employment Industries										
Wholesale, Durable	423	499	17	8,694	9%	9%	5%	73%	36%	131%
Specialty Contractors	238	249	25	6,167	6%	6%	5%	51%	22%	111%
Wholesale, Nondur.	424	199	27	5,321	5%	6%	2%	79%	27%	136%
Mgmt. of Companies	551	39	116	4,531	4%	3%	10%	38%	25%	165%
Air Transportation	481	25	172	4,303	4%	5%	0%	100%	93%	99%
Fabricated Metal Mfg.	332	162	26	4,139	4%	4%	1%	95%	39%	97%
Truck Transportation	484	125	31	3,926	4%	5%	1%	92%	45%	101%
Transp. Support	488	140	28	3,862	4%	4%	1%	82%	76%	103%
Transp. Equip. Mfg.	336	38	93	3,530	3%	3%	7%	95%	50%	125%
Admin. & Support	561	128	27	3,515	3%	3%	5%	17%	7%	65%
Primary Metal Mfg.	331	23	146	3,362	3%	3%	0%	79%	55%	125%
Transit	485	18	178	3,201	3%	4%	1%	82%	100%	51%
Educational Services	611	22	145	3,182	3%	1%	14%	10%	23%	69%
Couriers, Messengers	492	43	69	2,986	3%	3%	2%	91%	63%	76%
Food Manufacturing	311	43	65	2,779	3%	3%	2%	71%	37%	88%
Printing and Support	323	81	26	2,101	2%	2%	2%	59%	36%	101%
Food & Drinking Places	722	117	17	2,020	2%	1%	4%	8%	4%	35%
Prof. & Technical Svcs.	541	193	10	1,946	2%	1%	5%	8%	5%	141%
Computer & Elec. Mfg.	334	18	104	1,868	2%	2%	0%	92%	5%	185%
Repair Services	811	193	9	1,669	2%	2%	1%	42%	18%	92%

NAICS: A = 221, 517, 562; B = 511-519, exc. 517; C = 532, 5617, 811, 8123; D = 6112-6117, 6213, 81393; E = 521-533, exc. 532; F = 541, 561 exc. 5167; G = 611-624 exc. 6112-6117; H = 812 exc. 8123, 813 exc. 81393, 814

* Metro area (Oregon portion of PMSA) jobs and percent of average pay in all metro area industries apply to Clackamas, Columbia, Multnomah, Washington, and Yamhill Counties. Information on industries identified by 4- or 5-digit NAICS codes is not included.

Source: Covered Employment, Oregon Employment Department

INDUSTRIAL LAND USE PATTERNS

How does the use of land vary among industries?

Distribution facilities are the predominant land use in Portland's industrial areas, taking up 47 percent of the developed, occupied land. Freight terminals in particular (rail yards, marine terminals, the airport runways and terminal, and larger truck terminals) use 32 percent of the city's developed, occupied industrial land. Transportation and wholesale businesses, typically occupying warehouse buildings, use another 15 percent.

General industrial facilities, including manufacturing, construction, and utilities, use 17 percent (1,752 acres) of Portland's developed, occupied industrial land. This is the most diverse category of industrial building types. Utilities and manufacturing have the highest value of site improvements per square foot among industrial facilities.

Multi-tenant facilities, such as flex space, use 18 percent (1,881 acres) of the developed, occupied land. The land use mix of multi-tenant sites approximates that of all sites in the industrial districts, as shown in the table on the opposite page.

Conclusions

- Distribution facilities use 47 percent of the city's occupied industrial land; general industrial facilities use 17 percent; mult-tenant facilities, 18 percent; industrial services, 11 percent; and non-industrial, 8 percent.
- Nearly half of the city's occupied industrial land is in heavy industrial use, mostly as freight terminals. Heavy is defined here as large-scale operations - rail, harbor or runway use; large structure footprints; or large outdoor use areas.
- The average job density is similar among manufacturing, wholesale, and transportation facilities (excluding freight terminals) – 10-13 jobs per developed acre.
- The mix of industries in multi-tenant facilities (e.g. flex space) approximates that of all sites in the industrial districts.

Industrial service facilities use 11 percent of the developed, occupied land. Public facilities are loosely classified as industrial services. They consist primarily of public maintenance yards and military facilities with harbor or runway access but also include unoccupied public ownership and non-industrial facilities (e.g. jails). Other industrially related service facilities include equipment rental, repair, building maintenance, and industrial laundry businesses.

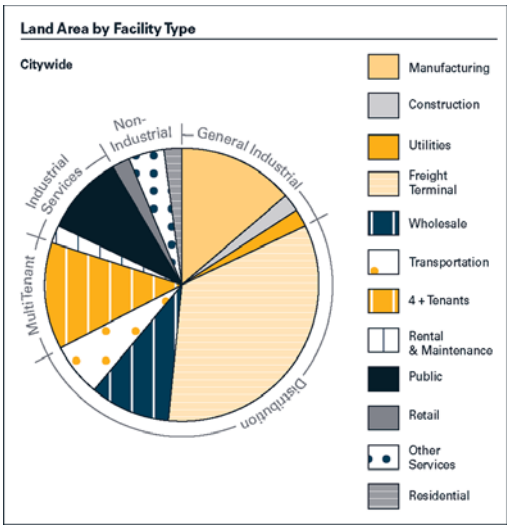
The Swan Island industrial area.

Non-industrial facilities use 8 percent of the developed, occupied land and include retail, other services typically in office buildings, and housing.

Heavy industrial sites span a range of facility types that take up 41 percent of the developed, occupied land. These sites represent large-scale industrial facilities, including freight terminals and other sites with rail, harbor, or PDX runway usage, structure coverage of 100,000 or more square feet or outdoor impervious area of 10 or more acres.

The Land Use Mix in Industrial Sanctuaries

Portland's industrial sanctuary policy reserves land to encourage industrial growth in the city. The 13,800 acres of industrial zones that implement this policy limit land uses to achieve a compatible mix, excluding new residential and large-scale commercial development. As a result, distribution, general industrial, and industrial service facilities use 80 percent of the occupied, developed land in the industrial zones. Multi-tenant facilities use another 16 percent. Non-industrial facilities take up only 4 percent of the occupied, developed land, including 1 percent in retail, 2 percent in other services, and 1 percent in housing. Nearly half of the land in industrial zones is in heavy industrial use. In contrast, within the pockets of general employment zones in Portland's industrial districts, 37 percent of the developed, occupied land is in non-industrial use, and none is in heavy industrial use.



Job Density among Industries

The average job density is similar among manufacturing, wholesale, and transportation facilities—10-13 jobs per developed acre. The job density at public and freight terminal sites is only 1-3 jobs per developed acre, but available employment data undercounts the workforce at those sites (For example, "Covered Employment" data does not track railroad employment and links many employees who work at marine or air terminals to employers at other addresses. Also, public employment is concentrated in large employers with several faciliites that report those jobs at only some of their addresses, giving an incomplete picture of where public employees work). Construction and office-related service facilities have the highest employment density of 24 to 25 jobs per developed acre.

FACILITY TYPES BY ACREAGE, JOB DENSITY, AND PROPERTY VALUE

Facility Type (1)	All Sites	% of Un-Developed Area (2)	Developed Area (2) Acres	Average Size	% of Occupied Acres by Zone All Zones	I	EG	Jobs per Acre	Real Property Value per square foot (3) Land	Improvements
All Sites	3,566	28%	11,067	3.1				9	$4.34	$11.52
Occupied Sites	2,904	23%	10,524	3.6	100%	100%	100%	9	$4.55	$11.76
General Industrial	522	20%	1,752	3.4	17%	18%	7%	14	$4.74	$22.74
Manufacturing	349	19%	1,378	3.9	13%	14%	5%	13	$4.42	$22.80
Utilities	51	32%	208	4.1	2%	2%	1%	6	$1.69	$41.53
Construction	122	14%	166	1.4	2%	2%	2%	25	$5.10	$8.36
Distribution	597	16%	4,955	8.3	47%	51%	9%	6	$4.24	$7.18
Freight Terminal	68	10%	3,388	49.8	32%	35%	1%	3	$4.17	$5.86
Transportation	134	39%	616	4.6	6%	6%	3%	10	$3.31	$5.85
Wholesale	395	13%	951	2.4	9%	9%	5%	11	$5.34	$12.78
Multi-Tenant	510	16%	1,881	3.7	18%	16%	37%	16	$5.28	$13.82
2-3 Tenants	348	9%	579	1.7	6%	5%	10%	16	$6.27	$13.84
4+ Tenants	162	19%	1,302	8.0	12%	11%	28%	17	$4.89	$13.81
Industrial Services	407	53%	1,120	2.8	11%	11%	10%	3	$4.73	$8.30
Public	272	56%	921	3.4	9%	9%	7%	1	$4.53	$7.87
Rental & Mtnc.	135	21%	199	1.5	2%	2%	3%	14	$6.38	$10.22
Non-Industrial	868	16%	816	0.9	8%	5%	37%	17	$5.37	$14.09
Retail	150	10%	215	1.4	2%	2%	7%	17	$6.73	$10.91
Other Services	179	10%	412	2.3	4%	2%	23%	24	$5.51	$18.48
Residential	539	31%	189	0.4	2%	1%	7%	1	$3.97	$7.53
Unoccupied Sites	662	70%	543	0.8					$2.75	$6.82
95% + vacant	172	99%	4	0					$1.73	$7.42
No Employer	490	48%	539	1.1					$3.52	$6.82
Heavy Industrial	123	25%	5,022	40.8	48%	52%	2%	7	$3.80	$22.88
Manufacturing	48	22%	857	17.9	8%	9%	0%	11	$3.44	$24.67
Freight Terminals	68	10%	3,388	49.8	32%	35%	1%	3	$4.17	$5.86
Transportation	9	69%	146	16.2	1%	2%	0%	40	$2.81	$1.89
Wholesale	19	20%	237	12.5	2%	2%	0%	36	$3.82	$14.60
Utilities	3	25%	92	30.7	1%	1%	0%	12	$2.04	$87.98
Public	24	64%	302	12.6	3%	3%	0%	2	$5.06	$14.45

1. The Bureau of Planning identified facility types generally from employment data supplemented by field inspection. Utility and public facilities also include unoccupied sites in corresponding ownership. Freight terminal and heavy industrial facilities are identified from use and scale characteristics. Methodology is described further in Chapter 3.
2. Developed area is all acres minus vacant and other open space acres.
3. Land value per square foot applies to all land; improvements value applies only to developed area.

Source: Multnomah County Assessment & Taxation - property values, March-July 2004; Oregon Employment Department -Covered Employment 2002

INDUSTRY MIX OF MULTI-TENANT FACILITIES

Facility Type	Share of Facility Type Employment by Industry (NAICS) All Industries	Manufacturing (311-339)	Construction (236-238)	Wholesale (423-425)	Rental & Transportation (481-493)	Professional Mtnc. (5617, 532, 811, 8123)	Services 541-561	Food & Retail 441-454	Other Leisure 711-722	Services (misc.)
2-3 Tenants	100%	22%	17%	17%	8%	10%	5%	9%	5%	3%
4+ Tenants	100%	16%	7%	15%	13%	5%	18%	6%	5%	8%
All Sites	100%	25%	8%	14%	19%	6%	8%	5%	4%	9%

Source: Covered Employment, 2002, Oregon Employment Department

SIZE OF FACILITIES AND STRUCTURES

How does site and structure size vary among industries?

Industrial facilities have a wide range of site and building sizes. The 123 identified heavy industrial facilities in Portland have an average structure footprint of 189,000 square feet, outdoor storage and maneuvering area (estimated by impervious surface) of 20 acres, and total developed land area of 29 acres per site. Developed area excludes the vacant (unimproved) portions of sites, as well as open space areas that are generally not available to develop. Freight terminals are the most land-intensive of heavy industrial facilities. They include 100- to 200-acre rail yards, 5- to 500-acre marine terminals, and the 1,100-acre airport runway site.

Manufacturing sites vary in developed area from an average 9 acres in Rivergate to 0.8 acres in the Inner Eastside. The 349 manufacturing sites among all districts have an average developed area of 3.9 acres and average structure size of 60,000 square feet. The developed portion of the 395 wholesale sites is concentrated in the 1- to 10-acre size range, averaging 2.4 acres. The average structure area on wholesale sites is 36,000 square feet.

Conclusions

- Site and structure sizes vary widely among industrial facilities, more than any other land use type. Construction and services sites tend to be smaller than 10 acres; freight terminals larger than 50 acres; wholesale and transportation sites in the 3-20 acre range, and manufacturing and utility sites spread across all size ranges.
- Outdoor use areas (storage, parking, maneuvering) are a standard part of industrial sites, not a sign of underutilization. The average size of developed outdoor area is 20 acres on heavy industrial sites.

The smallest industrial facilities are construction and rental and maintenance services, averaging 1.4 to 1.5 acres in developed area. Non-industrial facilities are also relatively small. Retail sites in industrial areas have an average structure area of 15,000 square feet and developed area of 1.4 acres. Other non-industrial service facilities have an average structure area of 22,000 square feet and developed area of 2.3 acres.

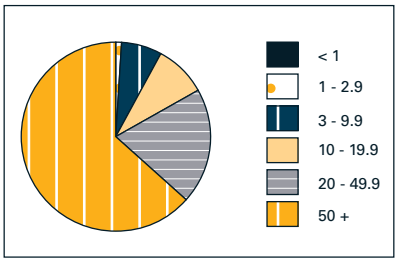
FACILITY TYPES BY SITE AND STRUCTURE SIZE

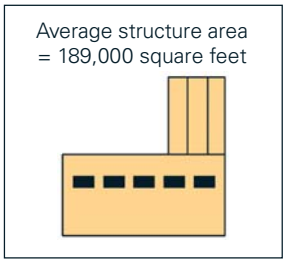
	Share of Developed Area by Site Size (Acres)						Average Size (Acres)*			
Facility Type	<1	1 - 2.9	3 - 9.9	10-19.9	20-49.9	50+	Developed Area	Structures (sq. ft.)	Site Coverage	Outdoor Impervious
All Sites	7%	11%	20%	13%	14%	36%	-	-	-	-
Occupied Sites	6%	10%	20%	12%	14%	37%	3.6	39,926	25%	2.3
General Industrial	7%	13%	26%	14%	21%	18%	3.4	46,893	32%	2.0
Manufacturing	6%	12%	28%	12%	24%	19%	3.9	59,903	35%	2.3
Utilities	7%	12%	15%	27%	11%	29%	4.1	39,530	22%	2.7
Construction	21%	28%	24%	14%	13%	0%	1.4	13,570	23%	0.8
Distribution	2%	6%	14%	10%	11%	56%	8.3	51,876	14%	5.4
Freight Terminal	0%	0%	3%	6%	12%	79%	49.8	175,564	8%	33.4
Transportation	2%	14%	37%	27%	8%	11%	4.6	33,338	17%	3.1
Wholesale	10%	22%	39%	15%	13%	0%	2.4	36,482	35%	1.4
Multi-Tenant	7%	13%	23%	20%	16%	22%	3.7	34,965	22%	2.1
2-3 Tenants	17%	28%	33%	13%	9%	0%	1.7	2,692	4%	0.8
4+ Tenants	2%	6%	19%	23%	19%	32%	8.0	104,822	30%	4.7
Industrial Services	8%	10%	25%	11%	14%	32%	2.8	24,996	21%	2.0
Public	5%	7%	22%	12%	15%	39%	3.4	37,189	25%	2.5
Rental & Mtnc.	20%	23%	38%	8%	11%	0%	1.5	16,011	25%	1.0
Non-Industrial	24%	24%	23%	7%	9%	12%	0.9	19,000	46%	0.5
Retail	20%	23%	28%	19%	10%	0%	1.4	15,491	25%	0.8
Other Services	8%	24%	30%	0%	12%	24%	2.3	21,923	22%	1.1
Residential	64%	23%	4%	9%	0%	0%	0.4	2,795	18%	0.1
Unoccupied Sites	25%	26%	22%	19%	8%	0%	0.8	12,752	36%	0.8
>95% Vacant Land	60%	37%	0%	0%	0%	0%	0.0	1,903	-	0.9
No Employer	24%	26%	22%	20%	8%	0%	1.1	13,487	28%	0.7
Heavy Industrial	0%	1%	7%	9%	20%	64%	29.4	188,846	15%	20.2
Manufacturing	0%	1%	14%	16%	38%	30%	17.9	234,177	30%	11.3
Freight Terminals	0%	0%	3%	6%	12%	79%	49.8	175,564	8%	33.4
Transportation	0%	3%	18%	12%	20%	46%	16.2	38,470	5%	11.6
Wholesale	0%	1%	26%	23%	51%	0%	12.5	191,034	35%	7.5
Utilities	0%	0%	0%	11%	24%	65%	30.7	305,877	23%	18.3
Public	1%	1%	10%	10%	31%	48%	12.6	141,977	26%	14.1

* Developed area is all acres minus Metro's vacant land inventory and committed open spaces. Impervious area is determined differently by multispectral imaging. Site coverage is the share of developed area in structures. Outdoor impervious land excludes the area covered by structures.

Source: Bureau of Planning

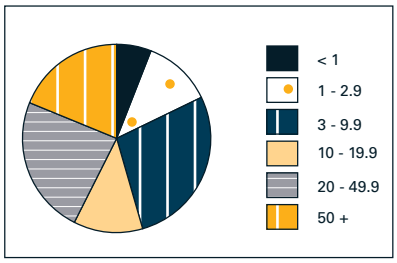
Heavy Industrial Facilities

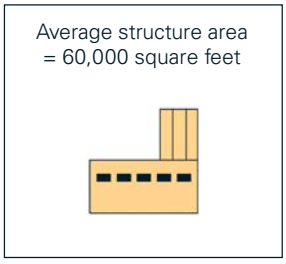




Port of Portland Terminal 4.

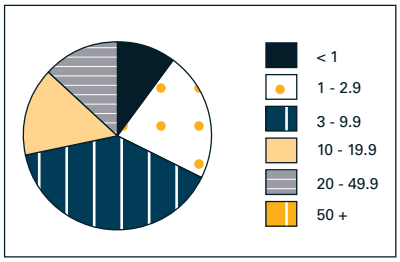
Manufacturing Facilities

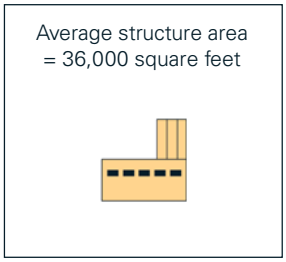




Kraft Foods bakery.

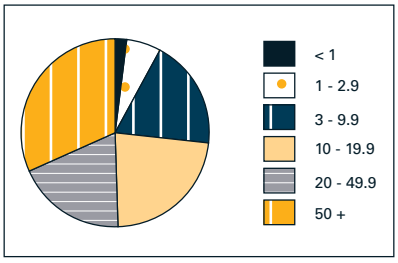
Wholesale Facilities

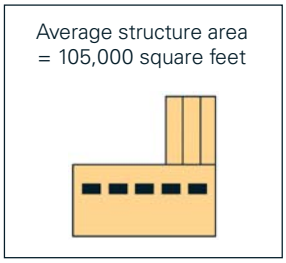




Valvoline distribution facility.

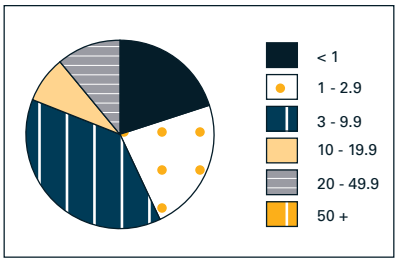
4 or More Tenant Facilities

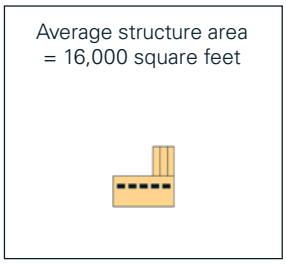




Kokusai Semiconductor Equipment occupies part of a business park facility.

Rental and Maintenance Facilities





Amtech Lighting Services.

HEALTHY INDUSTRIAL SITE CONDITIONS

What types of site conditions make for healthy industrial districts?

A city's industrial competitiveness is often seen in terms of the specialties and diversity of its industries, their productivity, and their rates of growth and innovation. Competitiveness is also influenced by factors outside of firms, particularly in the supply and quality of industrial land, infrastructure, and labor that are available in a region or district. The tables below and in the next chapter gauge Portland's performance on some of these relevant site conditions.

Land. Industrial zoning largely determines the supply of land available for most manufacturing and distribution uses. Portland has 15,500 acres of land in industrial districts, committed to future industrial use by zoning or *Comprehensive Plan* designation. The ability of that land supply to encourage industrial investment is also affected by having competitive industrial land values (generally $4 to $6 per square foot in this region), buffers from neighborhoods, a range of site sizes to suit demand, and manageable risks from environmental and cleanup constraints.

Infrastructure. Industrial districts have large-scale and varied needs for infrastructure. Particular advantages of Portland's industrial districts are their proximity to truck routes and transit and substantial land area with harbor, air, or rail access. Also, nearly all sites have access to existing municipal water, sewer, and storm sewer and private utilities, although some locations have deficiencies and some industrial facilities have unusual needs that limit location options.

Labor. The metro area labor market of one million workers is widely mobile within the region, although Portland has specific labor advantages in its relatively dense urban neighborhoods and central location. The metro labor market also has advantages over other large U.S. cities in high levels of educational attainment and a growing share of 25-34 year old workers.

Conclusions

- Freight access is fundamental. Rail is available to 33 percent of the city's industrial land; harbor access to 22 percent, and airport runway access to 17 percent. Guaging truck access, 46 percent of the industrial land is on sites within a mile from a freeway ramp and 73 percent within two miles.
- Average market land values in Portland's industrial districts are $4-6 per square foot, competitive with the regional industrial land market. Inflation of land values to commercial or residential levels would constrain industrial growth potential.
- Most of the city's industrial land is along waterways. As a result, 29 percent of it is affected by environmental constraints to development such as floodplain, steep slopes, and significant wildlife habitat.

Zoning

The *Portland Zoning Code* regulates the types of new land uses allowed in different zones across the city. Ninety percent of the land in industrial districts has industrial zoning (IH Heavy Industrial and IG1 and IG2 General Industrial), which does not allow new residential or large-scale commercial development. Another 8 percent of the area has employment zoning (EG1 and EG2 General Employment), where most industrial uses are allowed along with a broader mix of other uses. The IG1 and EG1 zones apply to areas with predominantly small lots. The remaining 2 percent of the area is in other zones and either is designated in Portland's *Comprehensive Plan* to eventually convert to an industrial or employment zone or is on a taxlot that is partly in an industrial or employment zone.

	Industrial			Employment		
	IH	IG1	IG2	EG1	EG2	Other
Acres	5,550	724	7,556	63	1,200	375
% of All Acres	36%	5%	49%	0%	8%	2%

* IH = Heavy Industrial. IG = General Industrial. IG1 and EG1 are small-lot zones.

Source: Bureau of Planning

Distance from Residential Zones

Nearby housing represents a potential constraint for some industrial activities with off-site impacts (e.g., noise, late hours, vibration, appearance), particularly heavy industrial facilities. Most of Portland's large industrial districts are on river plateaus and are generally buffered from neighborhoods by bluffs, major roadways, and in some areas employment zones. Only 2 percent of the land area in industrial districts is within 200 feet of a residential zone, and 10 percent is within 500 feet.

Distance from residential zone	Sites	% of All Sites	Acres	% of Area
Less than 200 feet	466	13%	282	2%
200 - 500 feet	716	20%	1,201	8%

Source: Bureau of Planning

Property Values

The total value of existing structures and other real property improvements in Portland's industrial districts is $5.6 billion, based on the Multnomah County Assessment and Taxation estimates of market value. Average land value in these districts is $4.67 per square foot, which is competitive with typical industrial land values in the metro area. Inflation of land values to residential or commercial levels would constrain their industrial growth potential.

	All Districts ($ million)	Average per sq. ft.*	High Land Value Sites (exceeding $6/sq. ft.)
Land	$2,926	$4.67	Sites 1,893
Improvements	$5,605	$8.94	Acres 2,777
Total	$8,531	$13.61	% of Area 18%

Average Improvements/ Land Value Ratio = 1.92

* Square footage does not include open space.

Source: Multnomah County Assessment & Taxation, March - July 2004

(acres)	< 1	1-2.9	3-9.9	10-19.9	20-49.9	50+
Sites	2,085	720	488	155	75	43
% of All Sites	58%	20%	14%	4%	2%	1%
Acres	808	1,267	2,616	2,183	2,254	6,344
% of All Acres	5%	8%	17%	14%	15%	41%

Average Site Size = 4.34

Median Site Size = 0.74

Source: Bureau of Planning

Site Size

Portland's large industrial districts have a broad range of site sizes (except in the Central City) to suit a diverse mix of industrial uses. Average site size in the industrial districts is 4.3 acres. Sites larger than 50 acres make up 41 percent of the city's industrial land and are used mostly as freight terminals (marine, rail, and air) and manufacturing facilities.

	Acres	% of All Districts
Open Space*	1,085	7%
Constrained Land (Composite)	4,430	29%
100 Year Floodplain	1,740	11%
Other 1996 Inundation Area	783	5%
Title 3 Wetlands	592	4%
10% or Greater Slope	1,371	9%
Goal 5 Significant Habitat	3,581	23%
Open Space or Constrained	4,504	29%

Potential Cleanup Sites

238 sites with cleanup or investigation projects;

57 cleaned or investigated sites with "no further action required".

* OS, p, n zones; mitigation sites; public drainage; 10-year floodplain

Source: Oregon DEQ - cleanup sites

Environmental Constraints

Most of Portland's industrial districts are along waterways—the Willamette and Columbia Rivers and Johnson Creek. As a result, 29 percent of the city's industrial land is affected by related environmental constraints. Approximately 1,100 acres function as "open space" that is generally not available for development, including certain zones (open space, environmental protection, and river natural zones), mitigation sites established through development projects on regulated wetlands and habitat area, public drainage facilities, and the 10-year Johnson Creek floodplain. Another 3,400 acres is affected by certain environmental constraints where development is generally allowed but limited, including 100-year floodplain, wetlands, 10 percent or steeper slopes, and significant habitat. In addition, 233 sites in the industrial districts have active environmental cleanup or investigation projects that are being tracked by the Oregon Department of Environmental Quality. Some of these sites are underutilized brownfields, which are discussed in the following pages on growth capacity.

TRUCK & TRANSIT ACCESS

Miles from Site	Major Truck Street Sites	Acres	% of Area	Freeway Ramp Sites	Acres	% of Area	Miles from Site	Bus Stop Sites	Acres	% of Area
< 1	3,249	10,348	67%	2,074	7,074	46%	<1\4	3,063	9,228	60%
< 2	3,558	15,442	100%	3,095	11,221	73%	<1\2	3,495	14,439	93%
< 3	3,566	15,474	100%	3,543	15,302	99%				

MULTIMODAL FREIGHT ACCESS

	Airport Sites	Acres	% of Area	Railroad Sites	Acres	% of Area	Harbor Sites	Acres	% of Area
Adjacent	12	2,685	17%	727	5,166	33%	199	3,379	22%
< 5	1,378	7,277	47%						

Source: Bureau of Planning

Proximity to Transportation Infrastructure

Most of the city's industrial land is developed along freight routes and continues to be well served by freight infrastructure. To gauge freight access, the distance was measured from the center of each site to the nearest infrastructure. Nearly three fourths of the industrial land supply is on sites within two miles of a freeway ramp, and two thirds is within one mile of a Major Truck Street (designated in Portland's *Transportation System Plan*). Rail access is available (adjacent but not necessarily used) to 33 percent of the city's industrial land, airport runway access to 17 percent (the Port of Portland ownership at PDX), and Portland Harbor access to 22 percent. Portland is also well served by transit. An estimated 93 percent of the city's industrial land is within ½-mile (about a 20-minute walk) of a bus stop.

	Sites	% of All Sites	Acres	% of Area
Adjacent to Sewer	3,289	92%	15,035	97%

Source: Portland Bureau of Environmental Services

Access to Sanitary Sewer

Municipal sewer is currently available (adjacent) to 97 percent of the city's industrial land.

GROWTH CAPACITY

What is the capacity for growth in Portland's industrial districts?

The demand for industrial land in the metro area is growing. Metro expanded the region's urban growth boundary in 2002 and 2004, adding about 4,000 acres of industrial land to meet projected needs to the year 2025. In the City of Portland specifically, the absorption of vacant industrial land has been forecast at 1,900 gross acres between 2000 and 2025 (ECONorthwest, 2003). Portland's ability to meet that demand will depend on overcoming development constraints on vacant and less utilized land. Solid information to reduce uncertainty in the development process is essential.

Portland's industrial districts had about 2,900 acres of vacant (unimproved) land in 2002 that might be available for private development (excluding identified open space uses and public and utility sites). Only a fraction of that vacant land is available for sale at any given time (estimated at 350 acres in April 2004). The development feasibility of this vacant land supply was examined here through three filters. First, about 1,100 acres of "partly buildable" land (Tier E) was identified, which is affected by floodplain, wetlands, slope, or significant habitat. The buildable portion of that land depends on regulatory limitations and how individual development proposals respond to site conditions. Second, Metro's Tier A-D classification of availability and use limitations was applied to the remaining 1,750 acres of "buildable" vacant land. For example, about 785 acres (Tier B) is limited by lease-only restrictions, access needs, or being part of occupied sites that may be held for future expansion by the current occupant. Only 143 acres have no identified use or availability constraints (Tier A). Third, about 1,100 acres of the vacant land supply is on sites where active environmental cleanup or investigation is occurring, which may pose an economic constraint to development. However, the vacant portions of those sites may not be contaminated.

New construction in Rivergate

In addition to vacant land, redevelopment and more efficient use of developed land offer long-term prospects for industrial growth. Two types of often challenging redevelopment opportunities are brownfields (see discussion below) and the 274 acres of housing sites in the industrial districts that are zoned for industrial or employment use. In addition, part of the city's industrial building stock is unoccupied at any given time (estimated at 9.6 million square feet of space for sale or lease in April 2004), and the less improved portions of sites may offer potential redevelopment opportunities.

The city's primary financial tool currently available to facilitate economic development is urban renewal, a program designed to help improve and redevelop areas that are deteriorated, unsafe, or poorly planned. Urban renewal funds in Portland are used primarily for infrastructure improvements. However, only a fourth of Portland's industrial land is located within one of the city's ten urban renewal areas. Two enterprise zones, which provide tax abatement and tax credit incentives for certain job creation investments, extend to 78 percent of the land in Portland's industrial districts. The Portland New Markets Program also provides tax credit incentives to facilitate economic growth and community development in low-income census tracts, which include 56 percent of Portland's industrial land.

The following chapter also identifies the city's Capital Improvements Program (CIP) projects within each industrial district that are expected to expand the district's development capacity. The CIP is a ten-year program for planning and budgeting the City's capital improvement priorities.

Conclusions

- Portland's ability to meet forecasted industrial land demand of 1,900 acres by 2025 will depend on overcoming development constraints on vacant and underutilized sites. Nearly all of the 2,900 acres of vacant (unimproved), private industrial land supply in the city is constrained to some degree or has availability or use limitations.
- After excluding open spaces, over 1,100 acres (38 percent) of the vacant, private industrial land supply is "partly buildable", affected by floodplain and other environmental constraints, where development is allowed but limited by current regulations. The uncertain development potential of these sites, which are concentrated in the freight hub districts, is ripe for creative approaches to balance economic development and environmental protection.
- Brownfield reuse is another long-term challenge and opportunity. Potential brownfields are estimated here as the underutilized portion (unimproved or unoccupied) of active cleanup and investigation sites, amounting to over 1,200 acres, 8 percent of the city's industrial land.

What is a Brownfield?

Cleanup of contaminated soil and structures is a common part of recycling industrial sites when tenants leave. Brownfields represent the underutilized portion of that land at a given time, an important land source for growth in older industrial areas. The U.S. Environmental Protection Agency characterizes brownfields as abandoned or underutilized sites where redevelopment is complicated by real or perceived contamination. Most of the 238 environmental cleanup and investigation sites in Portland's industrial areas are not brownfields—they are developed, occupied, and being investigated or cleaned by the owner or another responsible party. Among cleanup and investigation sites, two types of sites are identified here as underutilized and potential brownfields: 320 acres on 39 unoccupied sites (no tenant) and 920 acres of vacant (unimproved) land on occupied sites. Their combined land area is 1,240 acres. However, information is not generally available identifying the portions of sites that are being investigated or cleaned, so much of these 1,240 acres might not be associated with any cleanup liability.

VACANT LAND (UNIMPROVED ACRES), 2002

	All Vacant Land, 2002	Vacant Buildable Private Land						Additional Vacant Land			Land for Sale, 2004
		Buildable Total	No Constraints Tier A	Land with Availability or Use Constraints				Partly Buildable Tier F	Public & Utility Sites	Vacant Open Space	
				Landbanked Tier B	Infill Tier C	Underutilized Tier D	Other Tier E				
All Sites	3,880	1,811	143	785	129	67	687	1,102	413	553	357
% of All Vacant Land	100%	47%	4%	20%	3%	2%	18%	28%	11%	14%	9%
Potential Cleanup Sites	1,095	517	17	252	23	19	205	367	134	0	
% of All Vacant Land	28%	13%	0%	6%	1%	0%	5%	9%	3%	0%	
Columbia Corridor	3,263	1,551	140	618	97	58	638	914	331	467	235
Airport	1,440	748	16	217	40	8	466	426	133	133	135
Columbia Cor. East	730	259	94	106	16	32	9	197	34	240	55
Rivergate	1,093	545	30	294	40	18	162	291	164	94	45
Inner City	479	218	2	143	23	9	41	141	78	43	8
Inner Eastside	14	2	0	0	1	0	1	5	6	1	0
NW Industrial	313	137	2	84	15	8	28	81	61	33	8
Swan Isl./Albina	152	78	0	59	6	0	13	54	10	9	0
Dispersed Areas	134	41	0	24	8	0	8	47	5	42	114
Banfield	29	22	0	19	2	0	1	7	0	0	0
Outer Southeast	105	19	0	5	6	0	8	39	5	42	114

Vacant Land, 2002 (Metro) - unimproved land identified by aerial photography.
Vacant buildable private land (Tiers A-E) - all vacant land minus open space, Tier F, and public and utility sites with exceptions.

Tier A - vacant buildable private land with none of the constraints identified in Tiers B-F.
Tier B - vacant buildable private land that is partly developed, available for lease only, or has access constraints.
Tier C - vacant buildable private land that is less than 1 acre in size or exceeds industrial land values.
Tier D - vacant buildable private land with building coverage less than 10 percent.
Tier E - other vacant buildable private land not identified by Metro as Tiers A-D.
Tier F - vacant partly buildable private land, excluding open space but affected by either 100-year floodplain, 1996 inundation area, Title 3 wetland, slope exceeding 10 percent, or Metro Goal 5 habitat inventory.

Vacant open space - vacant land in OS, p, and n zones; mitigation sites, 10-year floodplain, and public drainage facilities

Sources: Metro - vacant land; Bureau of Planing - Tiers A-F and open space; CoStar - land for sale, April 2004

OTHER POTENTIALLY UNDERUTILIZED PROPERTY

	Cleanup / Investigation			Industrial Land in Residential Use**		Developed Space on Market, April 2004		
	Sites	Acres	% of District	Sites	Acres		Sites	Area
All Land in Sites	238	5,824	38%	539	274	For Sale:	57	2,307,231 s.f.
Developed/Occupied Portion		4,584	30%			For Lease:	244	7,269,909 s.f.
Underutilized Portion* (Potential Brownfields)		1,240	8%					
Unoccupied Sites	39	320	2%					
Vacant Land on Occupied Sites		920	6%					

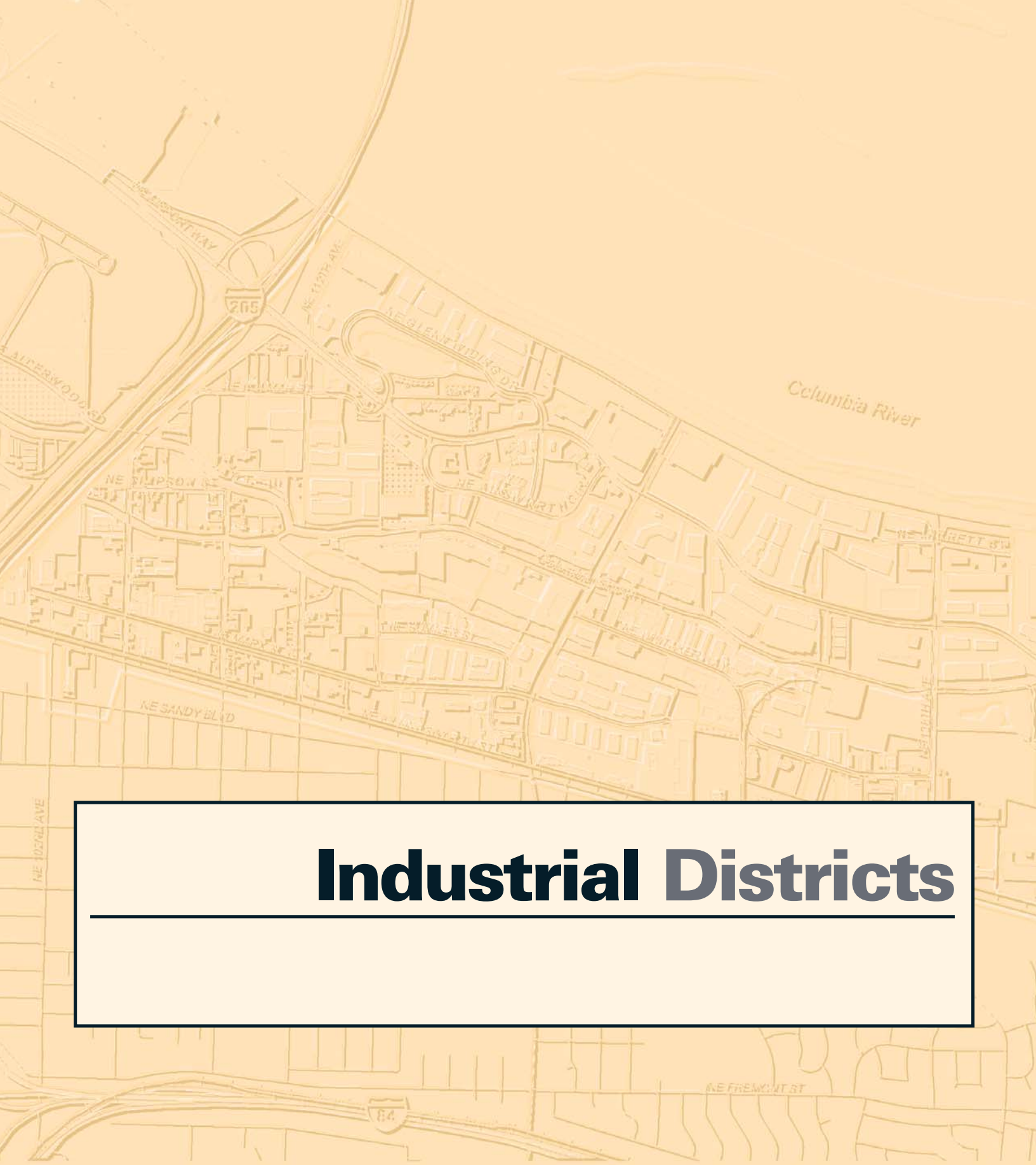
* Unoccupied sites (no tenant) and unimproved parts of sites (vacant land) are underutilized. Cleanup liability may co mplicate redevelopment on some part of these sites.
** Non-conforming residential use on site zoned or designated in Comprehensive Plan as industrial or general employment.

Sources: CoStar - space for sale or lease; Oregon DEQ - cleanup sites; Multnomah County Assessment & Taxation - residential use

ACCESS TO FINANCIAL TOOLS

	Sites	% of All Sites	Acres	% of Area
Urban Renewal Area	1,407	39%	3,671	24%
Enterprise Zone	1,768	50%	12,044	78%
New Market Tax Credits	1,980	56%	8,630	56%

Source: Portland Development Commission



Industrial Districts

The Northwest Industrial District

Launch of new barge manufactured by Gunderson Inc.

Main Features

- A diverse mix of industries with major facilities in the semiconductor, railcar, printing, and steel industries
- A regional freight hub location with harbor, rail, and pipeline access
- Eight petroleum terminals here are a gateway for most of the fuels used in Oregon

The Northwest Industrial District is the west side of Portland's working harbor. It combines the Guild's Lake and Linnton industrial areas. This older, heavy industrial quarter has the most diverse mix of manufacturing and distribution uses among the city's four freight hub districts.

Manufacturing is the leading employment sector, providing 44 percent of the district's 15,600 jobs. Its specialty industries relative to the city's other industrial districts and the region are transportation equipment manufacturing (e.g., Gunderson), printing (e.g., Graphic Arts Center), transportation support activities, primary metals manufacturing (e.g., Esco), and fabricated metal products manufacturing.

Heavy industrial facilities (primarily freight terminals) use 56 percent of the district's occupied developed land. Harbor access is available to 51 percent of the acreage, and rail access to 61 percent. Burlington Northern Santa Fe's Railroad's Lake Yard occupies 140 acres in the center of the district. Most of the district's harbor frontage is occupied by river-dependent facilities that have marine loading or moorage structures. A group of petroleum bulk terminals in the north half of the district are Oregon's distribution hub for gasoline, diesel and fuel oil, received from tanker vessels or the Olympic Pipeline for distribution to local markets.

The district has 140 acres of vacant, buildable private land, and another 80 acres of partly buildable vacant land is affected by floodplain or habitat constraints. Most of the district's vacant land and another 84 acres of unoccupied developed land are on sites with active environmental cleanup or investigation projects.

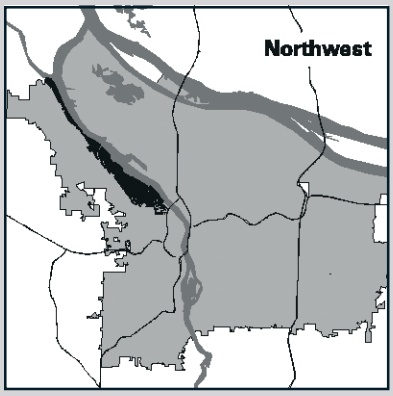
LARGEST EMPLOYERS

	INDUSTRY	JOBS
Siltronic Corp.	Semiconductors and Related Devices	500+
Gunderson Inc.	Gray Iron Foundries (railcars and barges)	500+
Esco Corporation	Steel Foundries	500+
Sulzer Inc.	Gray Iron Foundries (pumps)	500+
Electrical Construction	Electrical Work	250-499
Foss Maritime	Towing and Tugboat Services	250-499
John Carson Oil Co. Inc.	Fuel Oil Dealers	250-499
Graphic Arts Center Inc.	Commercial Printing Lithographic	250-499

Source: Inside Prospects, 2003

LOCATION

The Northwest District consists of Guild's Lake and Linnton industrial areas. It is the portion of the Portland Harbor industrial areas on the west side of the Willamette River.



SIZE

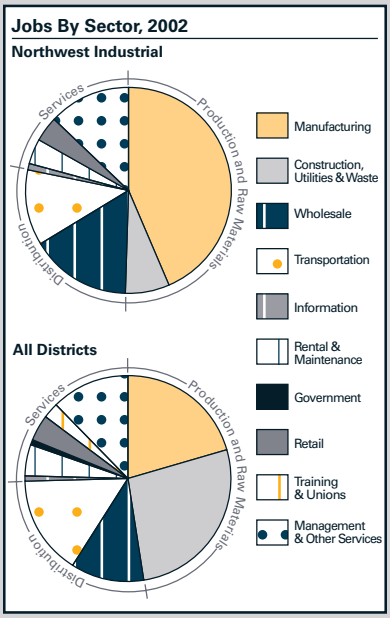
- 493 sites on 1,717 acres
- 11 percent of the city's industrial land
- 15,594 jobs in 509 establishments (2002)

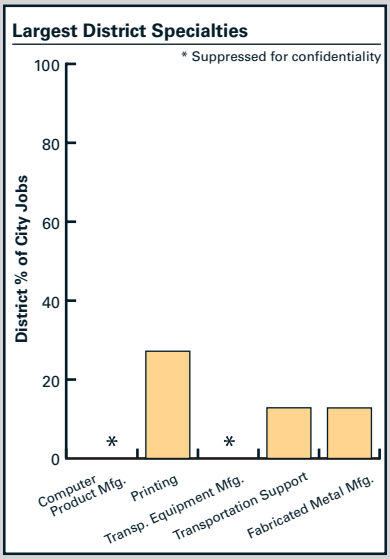
Sulzer Incorporated manufactures pumps.

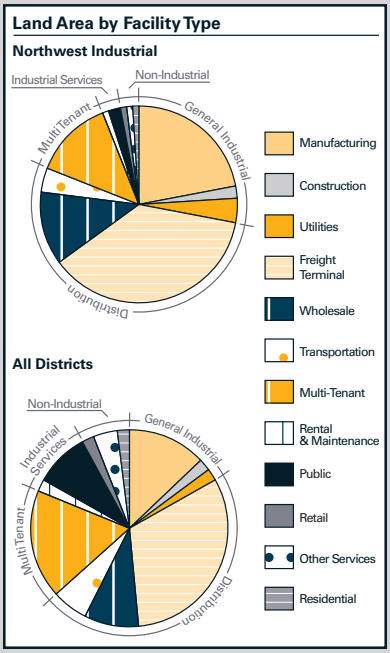
Esco steel foundry.

Siltronic Corporation manufactures semiconductors.

Mix of Industries







ESTABLISHMENTS AND JOBS, 2002

	NAICS	Establishments	Jobs/Establishment	Jobs	% of All Jobs in Area: District	% of All Jobs in Area: All Districts
All Sectors		509	31	15,594	100%	100%
Production & Raw Materials		150	53	8,000	51%	34%
Manufacturing	311-339	117	59	6,852	44%	25%
Construction, Utilities & Waste	A, 236-238	33	35	1,148	7%	8%
Distribution		193	23	4,376	28%	34%
Wholesale	423-425	135	18	2,458	16%	14%
Transportation	481-493	58	33	1,918	12%	19%
Services		166	19	3,218	21%	32%
Information	B	10	12	117	1%	1%
Rental & Maintenance	C	25	22	506	4%	6%
Government	921-928	0	0	0	0%	1%
Retail	441-454	35	17	588	4%	5%
Training & Unions	D	5	5	24	0%	3%
Management & Other Svcs	551, E	91	22	1,983	13%	16%
Highest Employment Industries						
Computer & Elec. Mfg.	334	*		*		
Wholesale, Durable	423	75	17	1,299	8%	9%
Wholesale, Nondurable	424	35	29	1,028	7%	5%
Specialty Contractors	238	22	45	1,000	6%	6%
Transp. Equip. Mfg.	336	*		*		
Printing & Support	323	22	44	969	6%	2%
Mgmt. of Companies	551	*		*		
Transportation Support	488	16	50	795	5%	4%
Fabricated Metal Mfg.	332	28	26	720	5%	4%
Primary Metal Mfg.	331	*		*		

NAICS: A = 221, 517, 562; B = 511-519, exc. 517; C = 532, 5617, 811, 8123; D = 6112-6117, 6213, 81393;

** Data suppressed for confidentiality*

Source: Covered Employment, Oregon Employment Department

FACILITY TYPES

Facility Type	Sites	Total Acres	Developed Area*: Acres	Developed Area*: Average Size	% of Occupied** Developed Area: District	% of Occupied** Developed Area: All Districts
Occupied Sites**	385	1,512	1,260	3.27	100%	100%
General Industrial	91	498	362	3.98	29%	17%
Manufacturing	74	336	278	3.76	22%	13%
Construction	11	34	31	2.84	2%	2%
Utilities	6	128	53	8.86	4%	2%
Distribution	103	738	666	6.47	53%	47%
Freight Terminal	24	513	460	19.16	37%	32%
Wholesale	60	157	150	2.50	12%	9%
Transportation	19	68	56	2.95	4%	6%
Multi-Tenant	62	179	164	2.65	13%	18%
4+ Tenants	22	87	83	3.78	7%	12%
Industrial Services	35	60	37	1.06	3%	11%
Rental & Mtnc.	14	19	15	1.09	1%	2%
Public	21	41	22	1.04	2%	9%
Non-Industrial	94	37	29	0.31	2%	8%
Retail	21	10	9	0.45	1%	2%
Other Services	12	17	12	0.99	1%	4%
Residential	61	10	8	0.14	1%	2%
Unoccupied Sites	108	206	130	1.21		
Heavy Industrial	41	824	701	17.10	56%	48%

** Developed area does not include vacant (unimproved) land or open space.*

*** Occupied sites are those with a current tenant.*

Source: Bureau of Planning

Site Conditions

ZONING

	Industrial			Employment		
	IH	IG1	IG2	EG1	EG2	Other
Acres	1,596	74	0	7	0	40
% of All Acres	93%	4%	0%	0%	0%	2%

** IH = Heavy Industrial. IG = General Industrial. EG = General Industrial. IG1 and EG1 are small-lot zones*

Source: Bureau of Planning

SITE SIZE

(acres)	< 1	1-2	3-9	10-19	20-49	50+	
Sites	266	128	66	17	10	6	Average Site Size = 3.48
% of District	54%	26%	13%	3%	2%	1%	
Acres	100	229	367	248	313	461	
% of District	6%	13%	21%	14%	18%	27%	

Source: Bureau of Planning

PROPERTY VALUES

	District ($ million)	Average per sq. ft.*
Land	$362.85	$4.99
Improvements	$961.07	$13.21
Total	$1,323.9	$18.20

High Land Value Sites (exceeding $6/sq. ft.)	
Sites	325
Acres	577.2
% of District	34%

Average Improvements/ Land Value Ratio = 2.65

** Square footage does not include open space.*

Source: Multnomah County Assessment & Taxation, March - July 2004

ENVIRONMENTAL CONSTRAINTS

	Acres	% of District
Open Space*	47	3%
Constrained Land (Composite)	382	22%
100 Year Floodplain	155	9%
Other 1996 Inundation Area	65	4%
Title 3 Wetlands	39	2%
10% or Greater Slope	202	12%
Goal 5 Significant Habitat	282	16%
Open Space or Constrained	383	22%

Potential Cleanup Sites

70 sites with cleanup or investigation projects;

8 cleaned or investigated sites with "no further action required".

** OS, p, n zones; mitigation sites; public drainage; 10-year floodplain*

Source: Oregon DEQ - cleanup sites

PROXIMITY TO TRANSPORTATION INFRASTRUCTURE

TRUCK & TRANSIT ACCESS

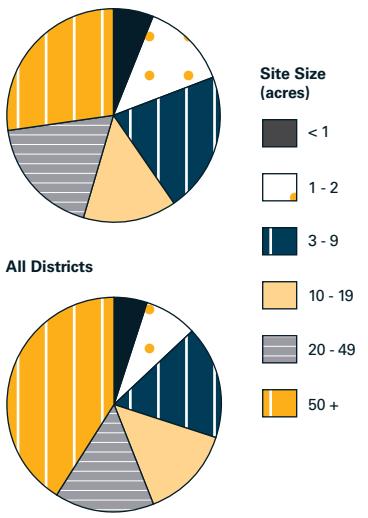
Miles from Site	Major Truck Street Acres	Major Truck Street % of District	Freeway Ramp Acres	Freeway Ramp % of District	Miles from Site	Bus Stop Acres	Bus Stop % of District
< 1	1,707	99%	532	31%	< 1/4	1,537	90%
< 2	1,717	100%	921	54%	< 1/2	1,717	100%
< 5			1,573	92%			

MULTIMODAL FREIGHT ACCESS

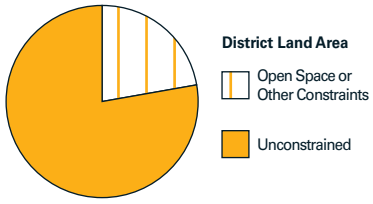
	Airport Acres	Airport % of District	Railroad Acres	Railroad % of District	Harbor Acres	Harbor % of District
Adjacent	0	0%	1,149	67%	698	41%
< 5	0	0%				

Source: Bureau of Planning

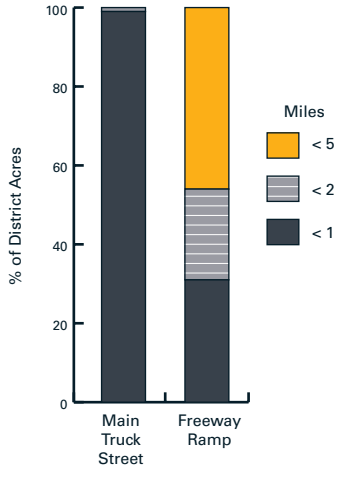
District Land Area by SIte Size



Environmental Constraints



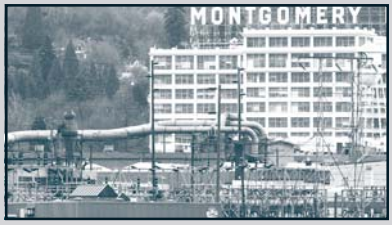
Distance From Site to Nearest Truck Route



Growth Capacity

A vacant 11-acre site at NW Yeon and Nicolai.

Almost 100 acres of vacant properties near the railroad bridge.



Montgomery Park.

VACANT LAND (UNIMPROVED ACRES) 2002

	All Vacant Land	Buildable, Private Land*			Partly Buildable Tier F**	Public & Utility Sites	Land for Sale
		Total	Unconstrained Tier A	Buildable Tier B - E			
All Vacant Sites	313	137.5	2.3	135.2	81.5	61.1	8.0
Potential Cleanup Sites	222	105.1	0.0	105.1	41.1	50.9	

* *Buildable private land includes all vacant land minus identified open space, Tier F, and public and utility sites with exceptions. Tiers B-E identify sites that may be affected by availability or use constraints.*

** *Tier F land is affected by either 100-year floodplain, 1996 inundation area, Title 3 wetland, slope exceeding 10 percent, or Metro Goal 5 habitat inventory. Identified open space is not included.*

Sources: Metro - vacant; Bureau of Planning - Tiers A-F; CoStar - land for sale

OTHER POTENTIALLY UNDERUTILIZED PROPERTY

	Cleanup/Investigation			Industrial Land in Residential Use**		Developed Space on Market, April 2004	
	Sites	Acres	% of District	Sites	Acres	Sites	Area
All Land in Sites	71	1,034	60%	61	10	For Sale	
Developed/Occupied Portion	29	727	42%			14	333,135 sf
Underutilized Portion*						For Lease	
(Potential Brownfields)	42	307	18%			41	744,177 sf
Unoccupied Sites	14	131	8%				
Vacant Land on Occupied Sites	28	175	10%				

* *Unoccupied sites (no tenant) and vacant (unimproved) parts of sites are underutilized. Cleanup liability may complicate redevelopment on some parts of these sites.*

** *Non-conforming residential use on site zoned or designated in* Comprehensive Plan *as industrial or general employment.*

Sources: CoStar - space for sale or lease; Oregon DEQ - cleanup sites; Multnomah County Assessment & Taxation - market property value.

ACCESS TO FINANCIAL TOOLS

	Sites	% of District	Acres	% of District
Urban Renewal Area	9	2%	10	1%
Enterprise Zone	236	48%	1,337	78%
New Market Tax Credits	0	0%	0	0%

Source: Portland Development Commission

CAPITAL IMPROVEMENTS PROGRAM PROJECTS

No capital projects in the current City of Portland CIP were identified that would expand the district's development capacity.

Northwest Industrial District

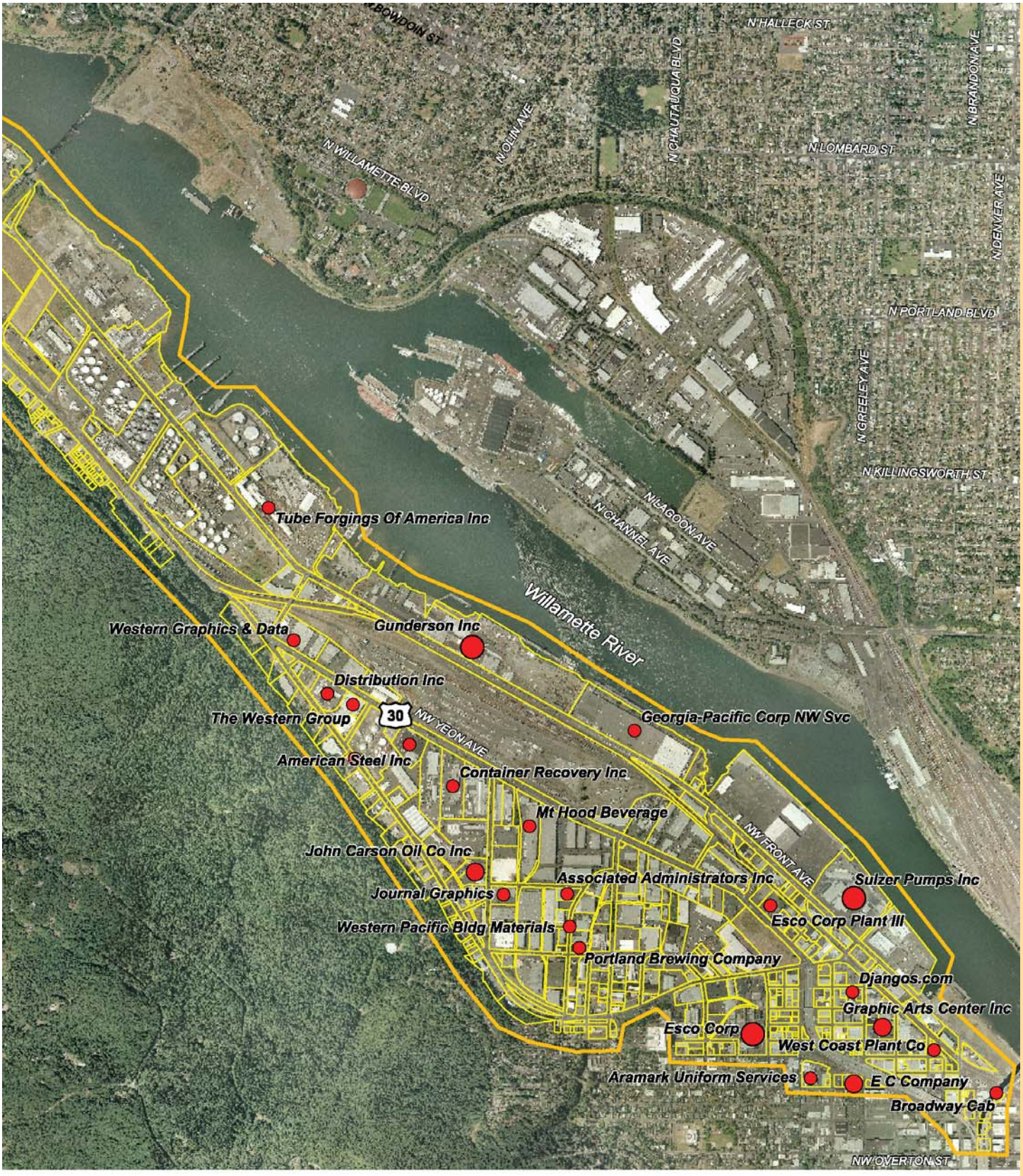
Employment

- 100 - 249 Employees
- 250 - 499 Employees
- 500+ Employees

- Site Boundary
- Inventory Area Boundary

N

0 412.5 825 1,650 2,475 3,300 Feet



Information Sources:
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- Employers - Inside Prospects (2003).

- Information sources are described further in Chapter 3.

Investing in Portland's Future

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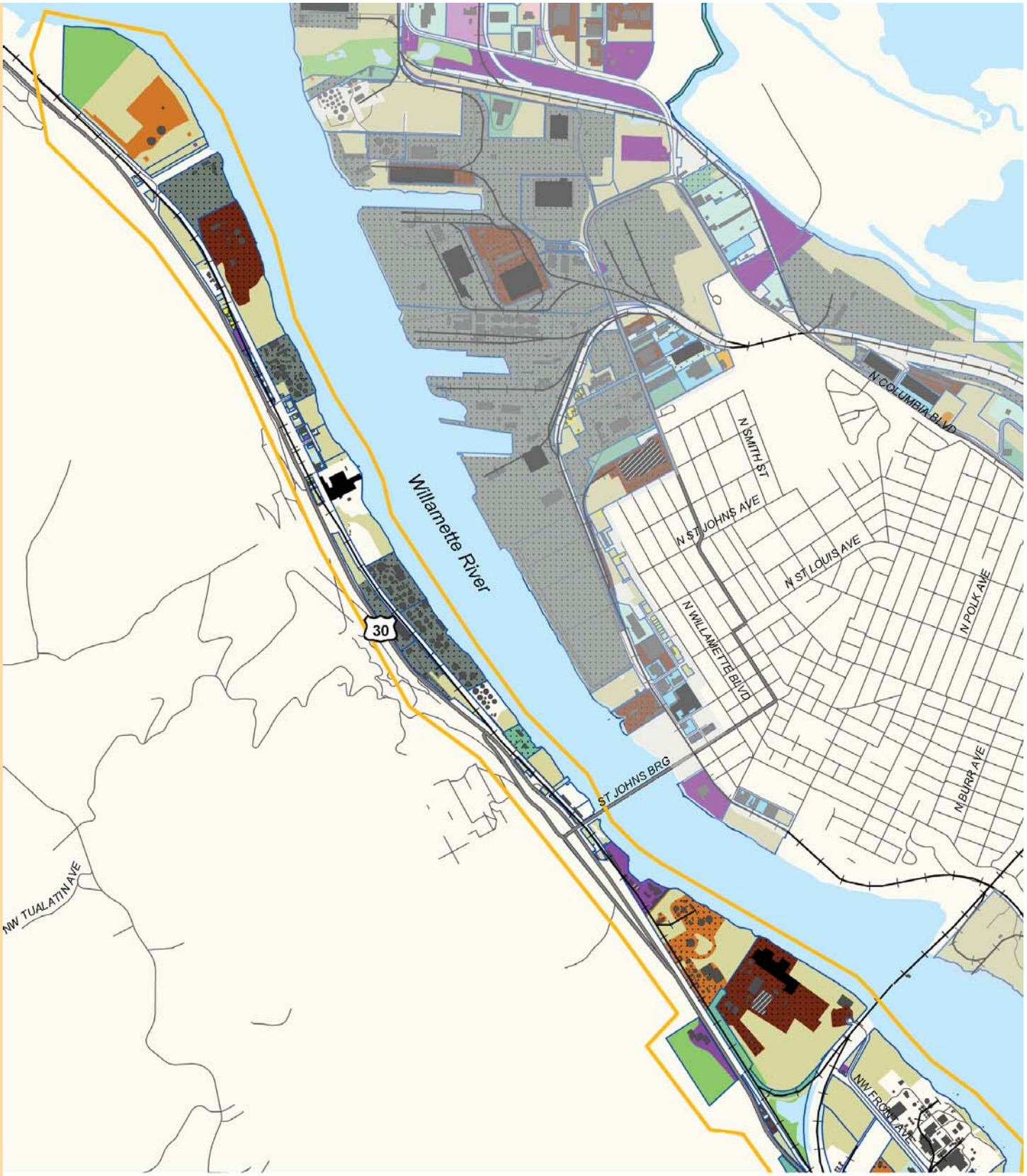
BUREAU OF Planning

NORTHWEST INDUSTRIAL DISTRICT



Northwest Industrial Facilities

Heavy Industrial
- Heavy Industrial (overlay)

General Industrial
- Manufacturing
- Utilities
- Construction

Distribution
- Freight
- Transportation
- Wholesale

Multi-Tenant
- 4 + Employers
- 2-3 Employers

Industrial Services
- Public
- Rental & Maintenance

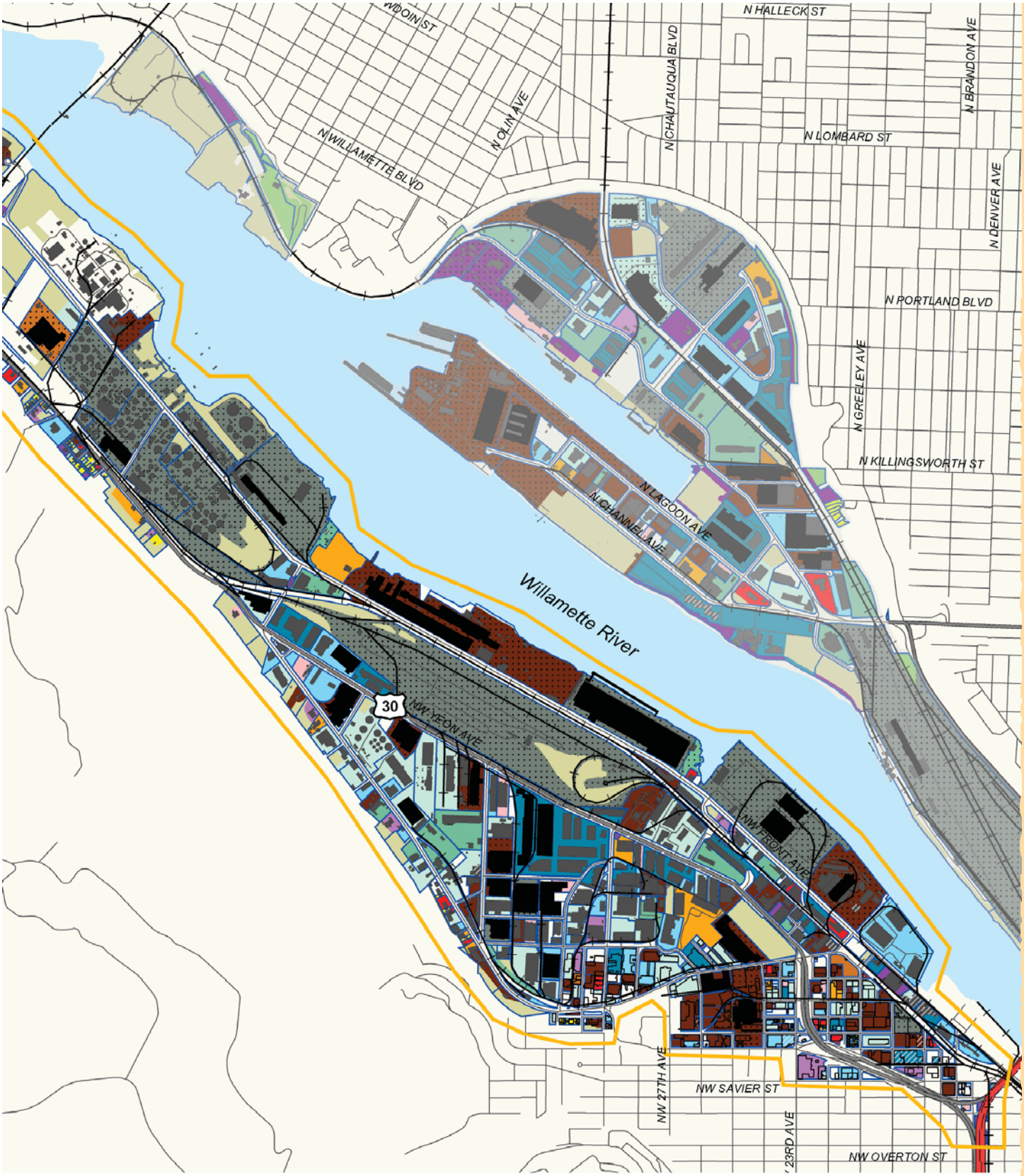
Non-Industrial
- Retail
- Services
- Residential

- Open Space
- Vacant Land
- 3 + Story (overlay)
- Structures >100,000 Sq Ft
- Other Structures
- Site Boundary
- Inventory Area Boundary

Transportation Infrastructure
- Railroads
- Freeways
- Major Truck Streets
- Streets

N

0 400 800 1,600 2,400 3,200 Feet



Information Sources:
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- Railroads - Metro from 2000 Regional Transportation Plan.
- Truck Streets - Portland Office of Transportation from Transportation System Plan (2002).

- Information sources and methodology are described further in Chapter 3.

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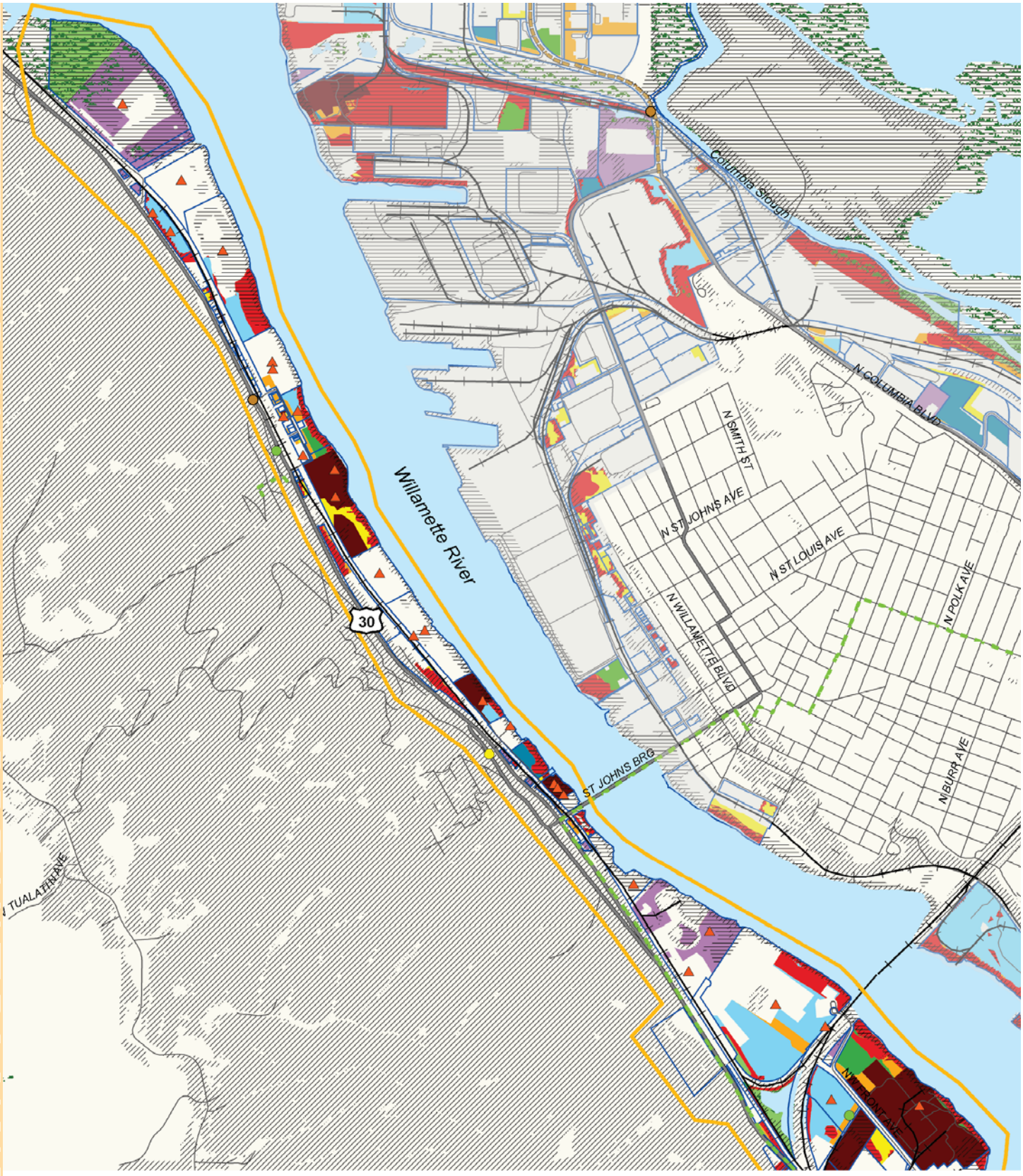
NORTHWEST INDUSTRIAL DISTRICT



Northwest Industrial Growth Capactiy

Tiers - Vacant Land

- A - No Constraints
- B - Land Banked
- C - Infill
- D - Underutilized
- E - Other
- F - Partly Buildable
- Vacant Open Space
- Public/Utilities
- Unoccupied DEQ Sites
- Site Boundary
- Inventory Area Boundary

Capital Improvements Program

- Bureau of Environmental Services Projects
- Portland Office of Transportation Projects
- Bureau of Water Works Projects

Transportation System Plan

- Freight Projects

Potential Cleanup Sites

- Active Investigation or Cleanup
- No Further Action Required

Environmental Constraints

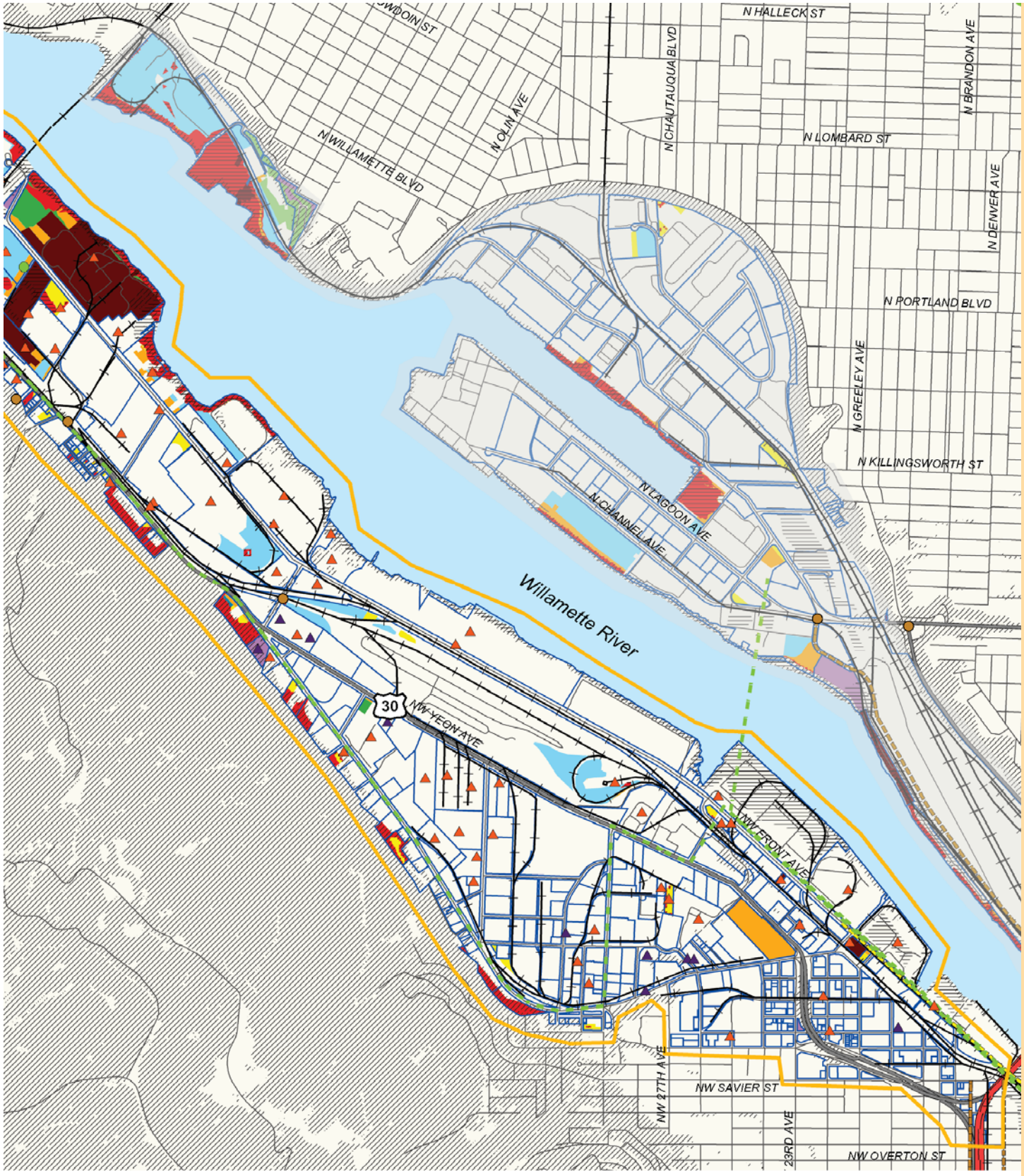
- Wetlands
- Slope > 10%
- 100 yr & 1996 Floodplains

Transportation Infrastructure

- Railroads
- Freeways
- Major Truck Streets
- Streets

N

0 415 830 1,660 2,490 3,320 Feet



NORTHWEST INDUSTRIAL DISTRICT

Information Sources:

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- Capital Improvements Program projects - City of Portland Corporate Geographic Information System (2004).
- Transportation System Plan projects - Portland Office of Transportation (2004).
- Potential Cleanup Sites - Oregon Department of Environmental Quality from Environmental Cleanup Site Information database (April 2004) mapped in approximate locations by Portland Bureau of Environmental Services. Data in ECSI is "working information" and some may be unconfirmed, outdated, or incomplete.
- Environmental Constraints - wetlands and 1996 flood inundation area from Metro Title 3 regulations. Modeled 100-year floodplain by Metro (2002).

- Information sources and methodology are described further in Chapter 3.

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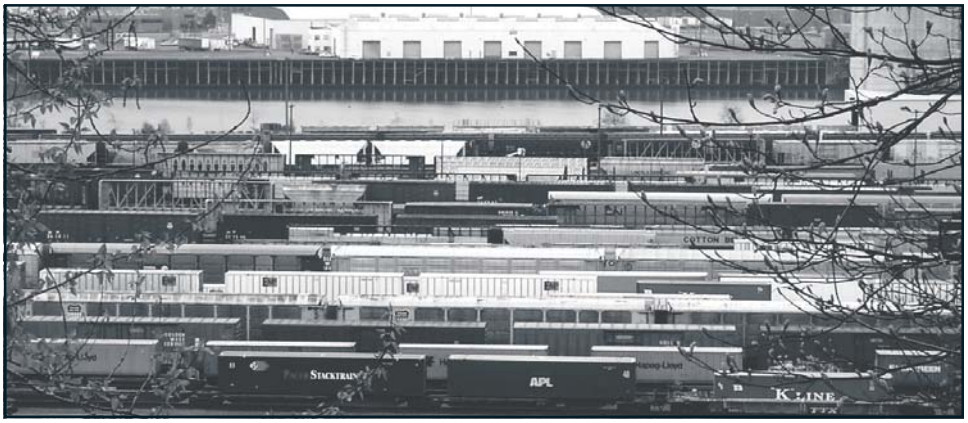
The Swan Island/Lower Albina District



Union Pacific's Albina railyard.

Main Features

- The core location for one of the region's largest traded sectors in transportation equipment manufacturing
- A regional freight hub location with harbor access and Union Pacific's busiest metro area rail yard
- A mix of distinct areas with industrial park, heavy industrial, office headquarters, or small-lot urban character.

The Swan Island/Lower Albina District is the southeast quarter of Portland's working harbor. This freight hub district is a cluster location for the region's transportation equipment manufacturing (e.g., Freightliner, Cascade General) and freight courier (e.g., United Parcel Service, Fedex) industries.

Additional specialty industries relative to Portland's other industrial districts and the region are management of companies (e.g., Freightliner), nondurable goods wholesalers (e.g., Columbia Distributing), and trucking (e.g., Roadway Express). Distribution is the leading employment sector, providing 40 percent of the district's 11,300 jobs.

Site conditions in the 1,060-acre district reflect its function as a distribution hub. Heavy industrial facilities use 51 percent of the district's occupied developed land. Harbor access is available to 38 percent of the district acreage, and rail access to 57 percent.

The district has five distinct sections. The Mock's Bottom area consists primarily of distribution and manufacturing facilities in an industrial park setting. The heavy industrial shipyard area at the end of Swan Island is characterized by the 115-acre Cascade General ship-repair facility. The southern part of Swan Island is an office complex, anchored by the headquarter facilities of Freightliner, the largest employer among Portland's cluster of transportation equipment manufacturers. The Albina Yard area and adjacent Lower Albina riverfront are heavy industrial, distinguished by Union Pacific's 200-acre rail yard. And the upland portion of Lower Albina area is an urban, small-block industrial area with a prominent cluster of public maintenance facilities.

The district has 75 acres of vacant, buildable private land and another 54 acres of partly buildable vacant land affected by floodplain or habitat constraints.

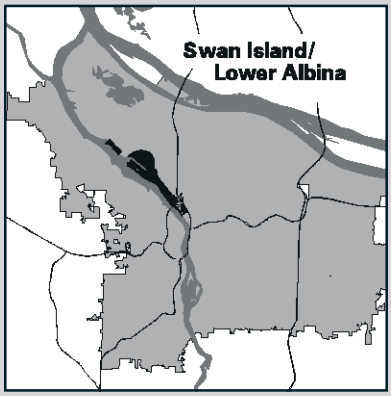
LARGEST EMPLOYERS

	INDUSTRY	JOBS
Freightliner Corp.	Motor Vehicles And Car Bodies	500+
United Parcel Service	Local Trucking Without Storage	500+
Columbia Distributing Co.	Beer And Ale	500+
Tiffany Food Service Inc.	Merchandising Machine Operators	500+
Portland School District 1	Elementary And Secondary Schools	500+
Roadway Express	Trucking Except Local	250-499
Cascade General Inc.	Ship Building And Repairing	250-499
Andersen Construction	Industrial Buildings And Warehouses	250-499
Imperial Vending Co.	Merchandising Machine Operators	250-499
DSU Peterbilt & GMC Inc.	New And Used Car Dealers	250-499

Source: Inside Prospects, 2003

LOCATION

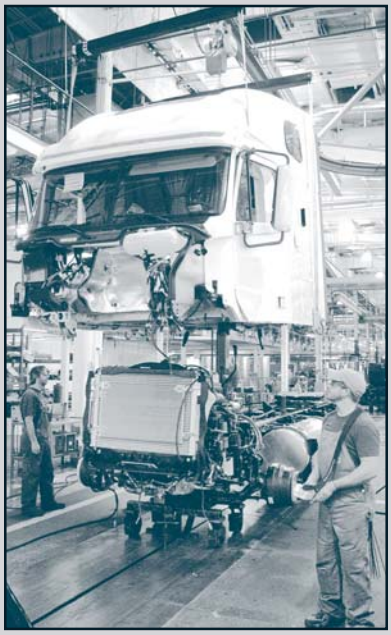
The Swan Island and adjacent Lower Albina areas are situated along the east bank of the Portland Harbor, north of the Central City.



SIZE

- 258 sites on 1,063 acres
- 7 percent of the city's industrial land
- 11,309 jobs in 265 establishments (2002)

Ship repair at Cascade General Inc.



Truck manufacturing at Freightliner Corporation.

Mix of Industries

ESTABLISHMENTS AND JOBS, 2002

	NAICS	Establishments	Jobs/Establishment	Jobs	% of All Jobs in Area: District	% of All Jobs in Area: All Districts
All Sectors		265	43	11,309	100%	100%
Production & Raw Materials		76	45	3,453	31%	34%
Manufacturing	311-339	49	48	2,330	21%	25%
Construction	236-238	24	43	1,041	9%	8%
Utilities & Waste	A	3	27	82	1%	1%
Distribution		101	45	4,526	40%	34%
Wholesale	423-425	63	27	1,712	15%	14%
Transportation	481-493	38	74	2,814	25%	19%
Services		88	38	3,330	29%	32%
Information	B	0	0	0	0%	1%
Rental & Maintenance	C	16	21	334	3%	6%
Government	921-928	0	0	0	0%	1%
Retail	441-454	12	20	243	2%	5%
Training & Unions	D	4	7	28	0%	3%
Management & Other Svcs.	551, E	56	49	2,725	24%	16%
Highest Employment Industries						
Couriers & Messengers	492	9	231	2,082	18%	3%
Mgmt. of Companies	551	3	583	1,749	15%	4%
Transp. Equip. Mfg.	336	10	151	1,505	13%	3%
Wholesale, Nondurable	424	21	45	953	8%	5%
Wholesale, Durable	423	33	22	730	6%	9%
Specialty Contractors	238	17	42	711	6%	6%
Truck Transportation	484	13	40	526	5%	4%
Prof. & Technical Svcs.	541	26	17	449	4%	2%
Fabricated Metal Mfg.	332	12	30	359	3%	4%
Bldg. Construction	236	5	66	330	3%	1%

NAICS: A = 221, 517, 562; B = 511-519, exc. 517; C = 532, 5617, 811, 8123; D = 6112-6117, 6213, 81393;

** Data suppressed for confidentiality*

Source: Covered Employment, Oregon Employment Department

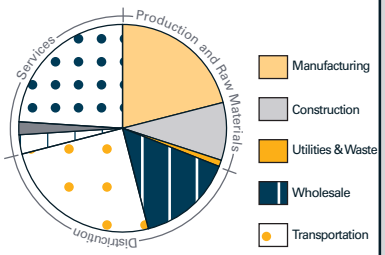
FACILITY TYPES

Facility Type	Sites	Acres	Developed Area: Acres	Developed Area: Average Size	% of Occupied Developed Area: District	% of Occupied Developed Area: All Districts
Occupied Sites	209	932	857	4.10	100%	100%
General Industrial	48	232	205	4.27	24%	17%
Manufacturing	32	209	182	5.68	21%	13%
Construction	11	17	17	1.51	2%	2%
Utilities	5	6	6	1.20	1%	2%
Distribution	54	400	388	7.19	45%	47%
Freight Terminal	6	273	265	44.20	31%	32%
Wholesale	29	64	61	2.12	7%	9%
Transportation	19	63	62	3.27	7%	6%
Multi-Tenant	33	159	154	4.67	18%	18%
4+ Tenants	11	108	103	9.33	12%	12%
Industrial Services	51	118	88	1.73	10%	11%
Rental & Mtnc.	4	4	4	1.05	0%	2%
Public	47	114	84	1.78	10%	9%
Non-Industrial	23	23	23	1.00	3%	8%
Retail	4	8	8	1.93	1%	2%
Other Services	10	12	12	1.20	1%	4%
Residential	9	3	3	0.32	0%	2%
Unoccupied Sites	49	131	42	0.86		
Heavy Industrial	19	472	441	23.21	51%	48%

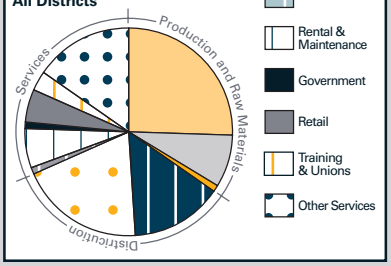
Source: Bureau of Planning

Jobs By Sector, 2002

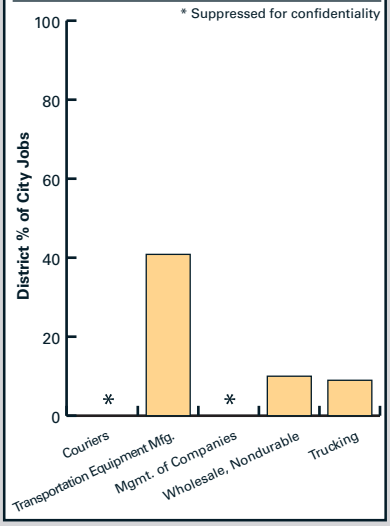
Swan Island & Lower Albina



All Districts

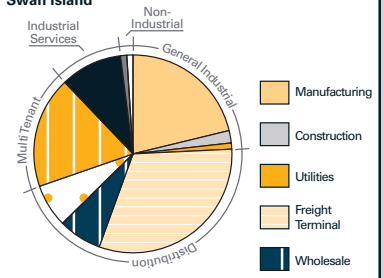


Largest District Specialties



Land Area by Facility Type

Swan Island



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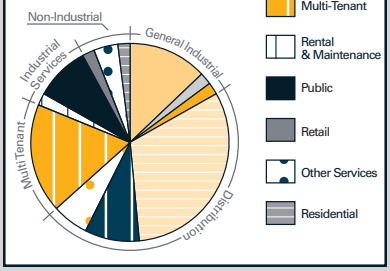


Site Conditions

ZONING

	Industrial			Employment		
	IH	IG1	IG2	EG1	EG2	Other
Acres	431	93	449	5	69	16
% of All Acres	41%	9%	42%	0%	6%	2%

** IH = Heavy Industrial. IG = General Industrial. EG = General Employment.*

Source: Bureau of Planning

IG1 and EG1 are small-lot zones

SITE SIZE

(acres)	< 1	1-2	3-9	10-19	20-49	50+	
Sites	122	66	50	11	7	2	Average
% of District	47%	26%	19%	4%	3%	1%	Site Size
Acres	47	115	284	147	204	265	= 4.12
% of District	4%	11%	27%	14%	19%	25%	

Source: Bureau of Planning

PROPERTY VALUES

	District ($ million)	Average per sq. ft.*
Land	$184.8	$4.07
Improvements	$490.2	$10.79
Total	$675.1	$14.86

High Land Value Sites (exceeding $6/sq. ft.)	
Sites	186
Acres	350.7
% of District	33%

Average Improvements/ Land Value Ratio = 2.65

** Square footage does not include open space.*

Source: Multnomah County Assessment & Taxation, March - July 2004

ENVIRONMENTAL CONSTRAINTS

	Acres	% of District
Open Space*	20	2%
Constrained Land (Composite)	177	17%
100 Year Floodplain	79	7%
Other 1996 Inundation Area	26	2%
Title 3 Wetlands	0	0%
10% or Greater Slope	108	10%
Goal 5 Significant Habitat	111	10%
Open Space or Constrained	184	17%

Potential Cleanup Sites

19 sites with cleanup or investigation projects;

5 cleaned or investigated sites with "no further action required".

** OS, p, n zones; mitigation sites; public drainage; 10-year floodplain*

Source: Oregon DEQ - cleanup sites

PROXIMITY TO TRANSPORTATION INFRASTRUCTURE

TRUCK & TRANSIT ACCESS

Miles from Site	Major Truck Street Acres	Major Truck Street % of District	Freeway Ramp Acres	Freeway Ramp % of District
< 1	763	72%	383	36%
< 2	1,063	100%	902	85%
< 5			1,063	100%

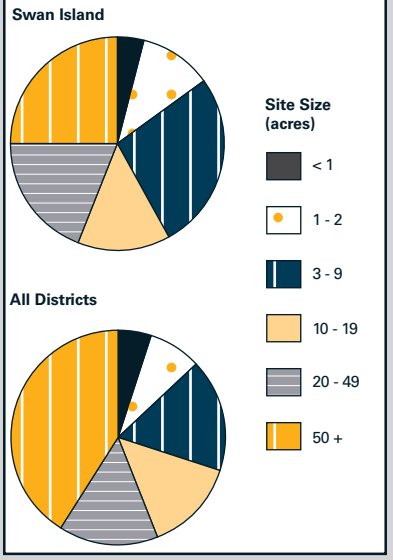
Miles from Site	Bus Stop Acres	Bus Stop % of District
< 1/4	1,025	96%
< 1/2	1,063	100%

MULTIMODAL FREIGHT ACCESS

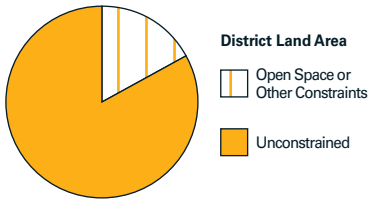
	Airport Acres	Airport % of District	Railroad Acres	Railroad % of District	Harbor Acres	Harbor % of District
Adjacent	0	0%	604	57%	403	38%
< 5	0	0%				

Source: Bureau of Planning

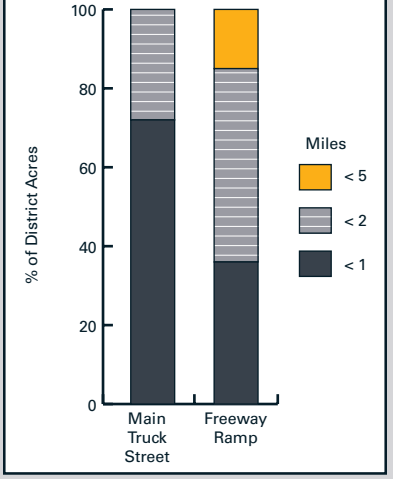
District Land Area by SIte Size



Environmental Constraints



Distance From Site to Nearest Truck Route



Growth Capacity

Over 70 vacant acres near University of Portland.

Vacant site south of the Cascade General shipyard.

Vacant site currently used for City's "Big Pipe" project.

VACANT LAND (UNIMPROVED ACRES) 2002

	All Vacant Land	Buildable, Private Land*			Partly Buildable Tier F**	Public & Utility Sites	Land for Sale
			Unconstrained	Buildable			
		Total	Tier A	Tier B - E			
All Vacant Sites	152	78.1	0.0	78.1	54.3	10.3	0.0
Potential Cleanup Sites	75	38.1	0.0	38.1	36.7	0.1	

* *Buildable private land includes all vacant land minus identified open space, Tier F, and public and utility sites with exceptions. Tiers B-E identify sites that may be affected by availability or use constraints.*

** *Tier F land is affected by either 100-year floodplain, 1996 inundation area, Title 3 wetland, slope exceeding 10 percent, or Metro Goal 5 habitat inventory. Identified open space is not included.*

Sources: Metro - vacant; Bureau of Planning - Tiers A-F; CoStar - land for sale

OTHER POTENTIALLY UNDERUTILIZED PROPERTY

	Cleanup/Investigation			Industrial Land in Residential Use**		Developed Space on Market, April 2004	
	Sites	Acres	% of District	Sites	Acres	Sites	Area
All Land in Sites	19	426	40%	9	3	For Sale	
Developed/Occupied Portion	11	343	32%			2	315,638 sf
Underutilized Portion*						For Lease	
(Potential Brownfields)	8	83	8%			22	872,473 sf
Unoccupied Sites	3	70	7%				
Vacant Land on Occupied Sites	5	13	1%				

* *Unoccupied sites (no tenant) and vacant (unimproved) parts of sites are underutilized. Cleanup liability may complicate redevelopment on some parts of these sites.*

** *Non-conforming residential use on site zoned or designated in* Comprehensive Plan *as industrial or general employment.*

Sources: CoStar - space for sale or lease; Oregon DEQ - cleanup sites; Multnomah County Assessment & Taxation - market property value.

ACCESS TO FINANCIAL TOOLS

	Sites	% of District	Acres	% of District
Urban Renewal Area	178	69%	312	29%
Enterprise Zone	258	100%	1063	100%
New Market Tax Credits	247	96%	973	92%

Source: Portland Development Commission

CAPITAL IMPROVEMENTS PROGRAM PROJECTS

No capital projects in the current City of Portland CIP were identified that would expand the district's development capacity.

Swan Island District

Employment

- 100 - 249 Employees
- 250 - 499 Employees
- 500+ Employees

Site Boundary

Inventory Area Boundary

N

0 315 630 1,260 1,890 2,520 Feet

Information Sources:
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- Sites - Bureau of Planning, based on taxlot information provided by City of Portland Corporate Geographic Information System and Multnomah County Assessment and Taxation (February 2003).
- Employers - Inside Prospects (2003).

- Information sources are described further in Chapter 3.

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Swan Island Facilities

Heavy Industrial
- Heavy Industrial (overlay)

General Industrial
- Manufacturing
- Utilities
- Construction

Distribution
- Freight
- Transportation
- Wholesale

Multi-Tenant
- 4 + Employers
- 2-3 Employers

Industrial Services
- Public
- Rental & Maintenance

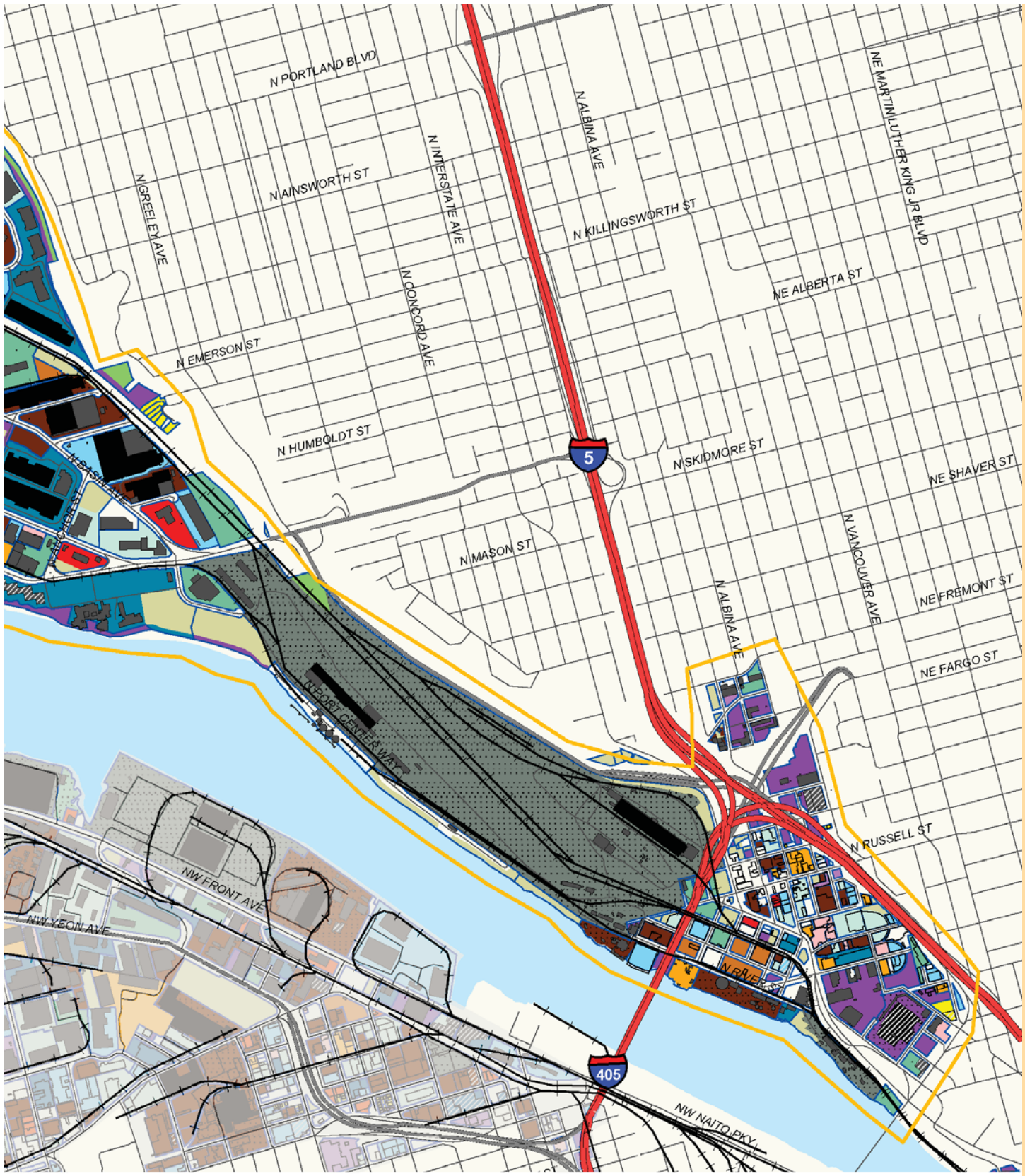
Non-Industrial
- Retail
- Services
- Residential

- Open Space
- Vacant Land
- 3 + Story (overlay)
- Structures >100,000 Sq Ft
- Other Structures
- Site Boundary
- Inventory Area Boundary

Transportation Infrastructure
- Railroads
- Freeways
- Major Truck Streets
- Streets

N

0 305 610 1,220 1,830 2,440 Feet



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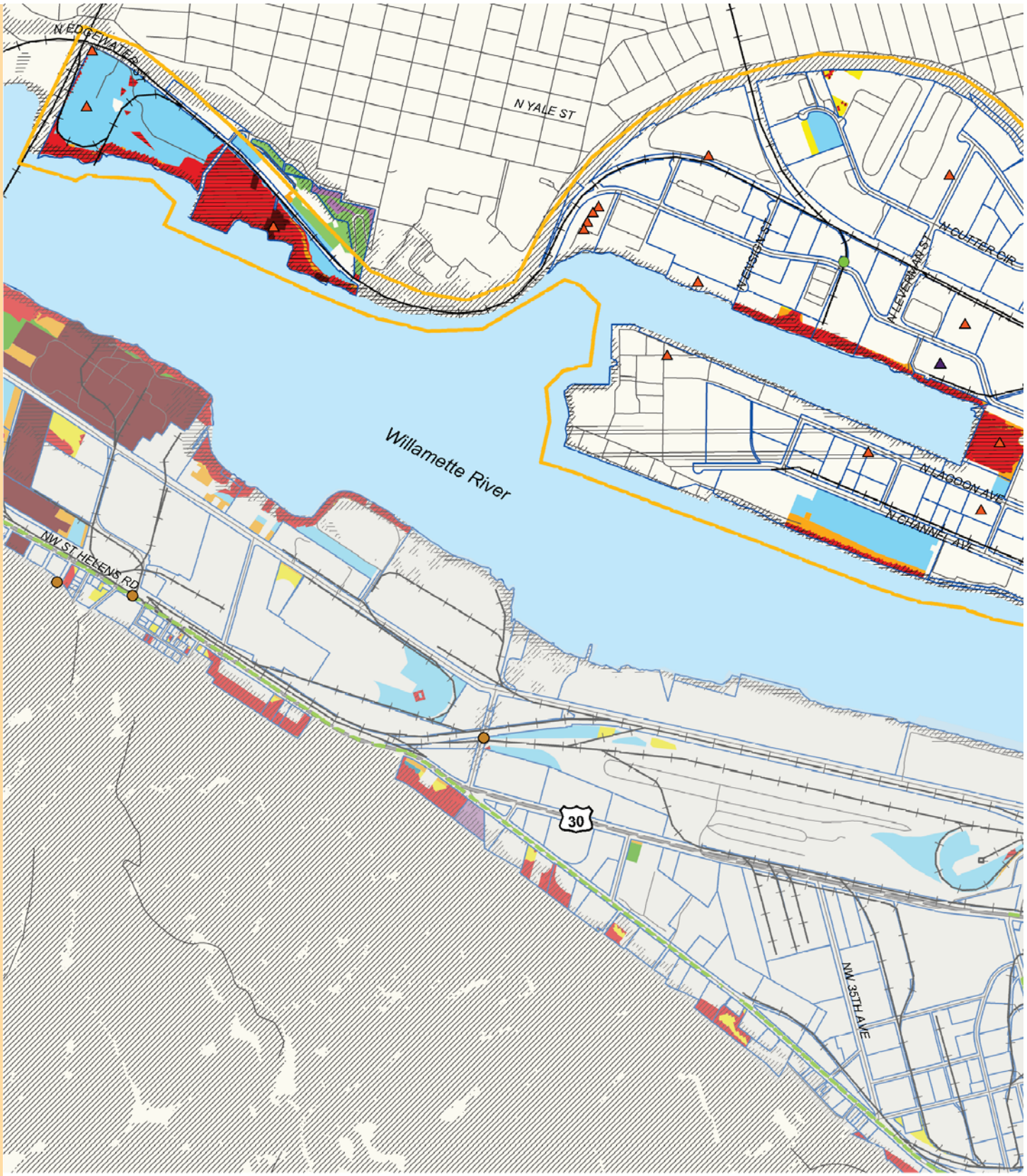


Swan Island Growth Capactiy

Tiers - Vacant Land

- A - No Constraints
- B - Land Banked
- C - Infill
- D - Underutilized
- E - Other
- F - Partly Buildable
- Vacant Open Space
- Public/Utilities
- Unoccupied DEQ Sites
- Site Boundary
- Inventory Area Boundary

Capital Improvements Program

- Bureau of Environmental Services Projects
- Portland Office of Transportation Projects
- Bureau of Water Works Projects

Transportation System Plan

- Freight Projects

Potential Cleanup Sites

- Active Investigation or Cleanup
- No Further Action Required

Environmental Constraints

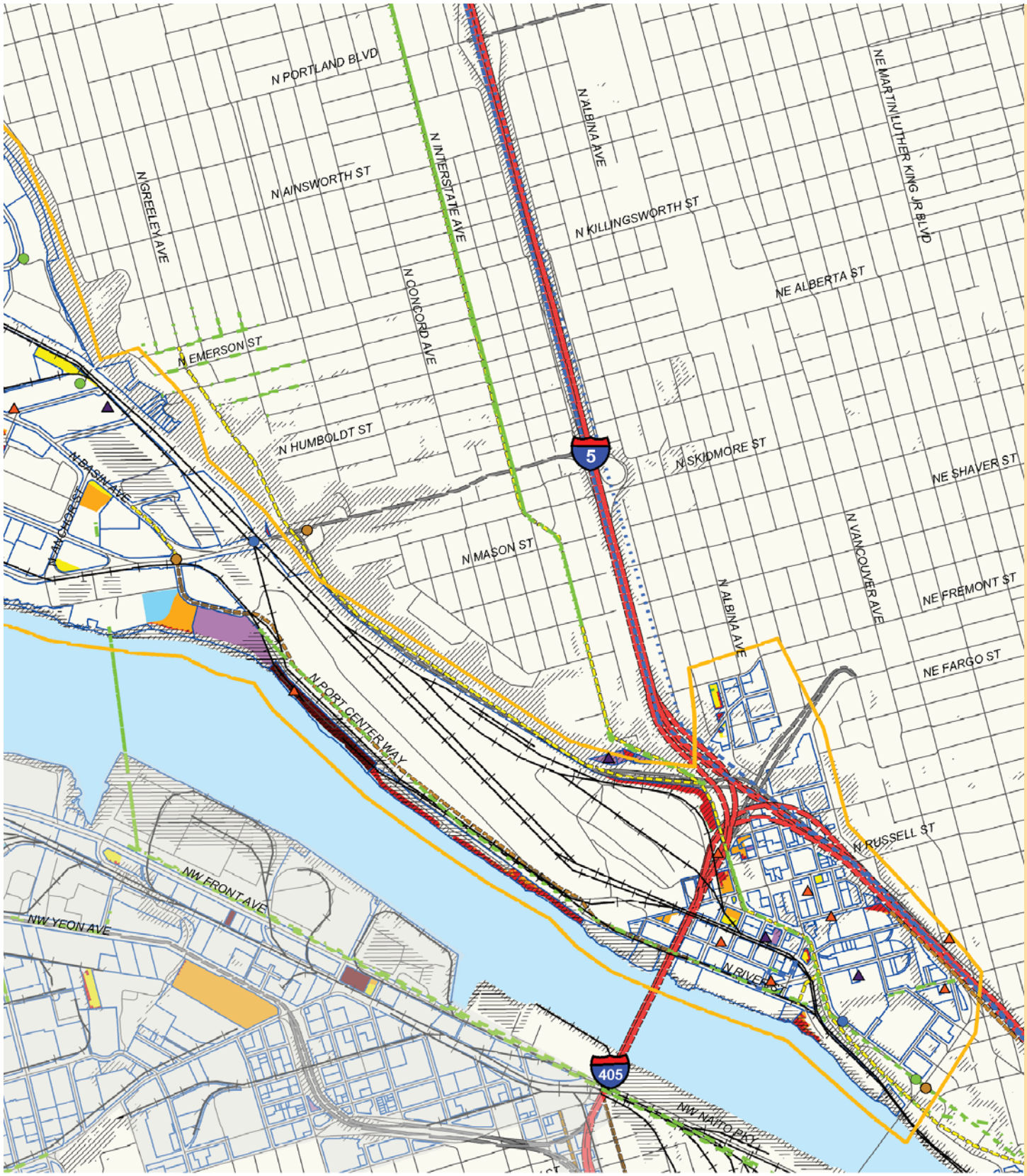
- Wetlands
- Slope > 10%
- 100 yr & 1996 Floodplains

Transportation Infrastructure

- Railroads
- Freeways
- Major Truck Streets
- Streets

N

0 295 590 1,180 1,770 2,360 Feet



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- Capital Improvements Program projects - City of Portland Corporate Geographic Information System (2004).
- Transportation System Plan projects - Portland Office of Transportation (2004).
- Potential Cleanup Sites - Oregon Department of Environmental Quality from Environmental Cleanup Site Information database (April 2004) mapped in approximate locations by Portland Bureau of Environmental Services. Data in ECSI is "working information" and some may be unconfirmed, outdated, or incomplete.
- Environmental Constraints - wetlands and 1996 flood inundation area from Metro Title 3 regulations. Modeled 100-year floodplain by Metro (2002).

- Information sources and methodology are described further in Chapter 3.

Investing in Portland's Future

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The Rivergate District

Hanjin container ship.

Main Features

- A regional freight hub location with over three fourths of the marine terminal acreage on Portland Harbor
- The core location for one of the region's largest traded sectors in metals manufacturing
- Room to grow with 550 acres of vacant buildable land and 290 acres of constrained, partly buildable land

Rivergate is Oregon's primary gateway for international trade, containing about half of the marine terminals on Portland Harbor and 78 percent of their total acreage. Port of Portland Terminals 4, 5, and 6 occupy most of the district's harbor frontage. These are the Columbia Basin's primary docks for container cargo, auto imports, and mineral bulk exports.

Rivergate is also a cluster location for the metals industry, one of the specialties of the region's economic base. Metals firms with more than 100 employees in the district include Oregon Steel, Columbia Steel Casting, Consolidated Metco, Schnitzer Steel International, and Northwest Pipe.

Additional industry specialties relative to other Portland industrial districts and the region are food manufacturing, trucking, warehousing, and transportation support activities. Manufacturing is the leading employment sector, providing 50 percent of the district's 9,200 jobs. Distribution is the most prominent sector by land area, using 62 percent of the district's occupied, developed land.

Site conditions in the 4,000-acre district reflect its function as a distribution hub. Harbor access is available to 51 percent of the acreage, and rail access to 61 percent. Rivergate is unique in being served both by Union Pacific and Burlington Northern Santa Fe railroads. Heavy industrial facilities (primarily freight terminals) take up 73 percent of occupied developed land. Half of the district is in sites larger than 50 acres.

Rivergate has 550 acres of vacant buildable private land, 30 percent of the total supply among Portland's industrial districts, and an additional 290 acres of partly buildable vacant land is affected by floodplain or habitat constraints. All but 30 acres of the buildable vacant land is constrained by availability or use limitations, such as the lease-only limitations on Port of Portland owned land.

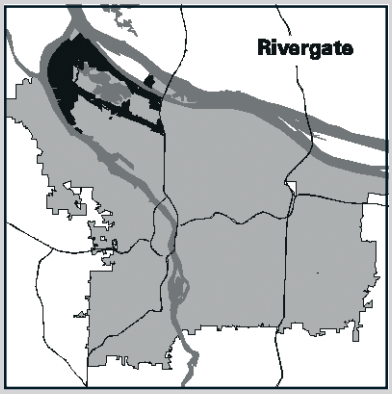
LARGEST EMPLOYERS

	INDUSTRY	JOBS
Oregon Steel Mills Inc.	Metals Service Centers And Offices	500+
Columbia Steel Casting	Steel Investment Foundries	250-499
Columbia Sportswear Co.	Womens And Childrens Clothing	250-499
Purdy Corporation	Brooms And Brushes	250-499
Nordstrom Distrib. Ctr.	General Warehousing And Storage	250-499
Consolidated Metco Inc.	Motor Vehicle Parts And Accessories	250-499
Del Monte Produce	Fresh Fruits And Vegetables	250-499
Schnitzer Steel Intl.	Metals Service Centers And Offices	250-499
Graphic Packaging Corp.	Packaging, Paper & Plastic Film Coated	250-499
Phoenix Gold Intl.	Household Audio & Video Equip.	250-499

Source: Inside Prospects, 2003

LOCATION

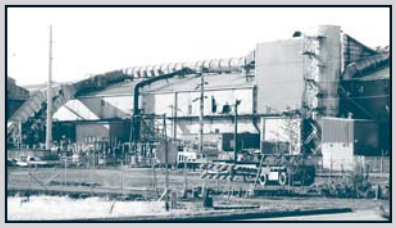
The Rivergate District is at the north end of the east bank of the Portland Harbor area and at the west end of the Columbia Corridor. It includes the St. Johns industrial areas to the south and extends east to the I-5.



SIZE

- 381 sites on 4,050 acres
- 26 percent of the city's industrial land
- 9,183 jobs in 276 establishments (2002)

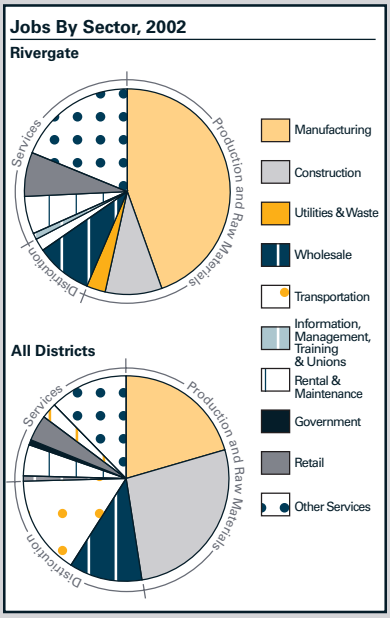
Columbia Steel Castparts.

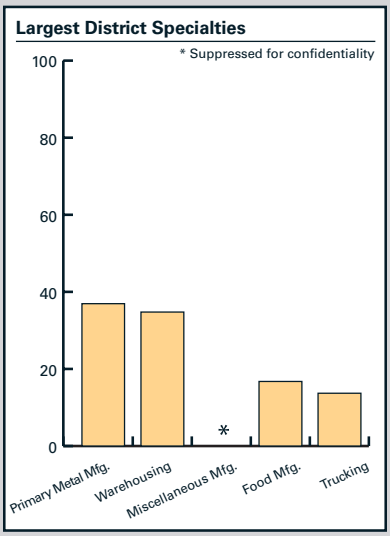


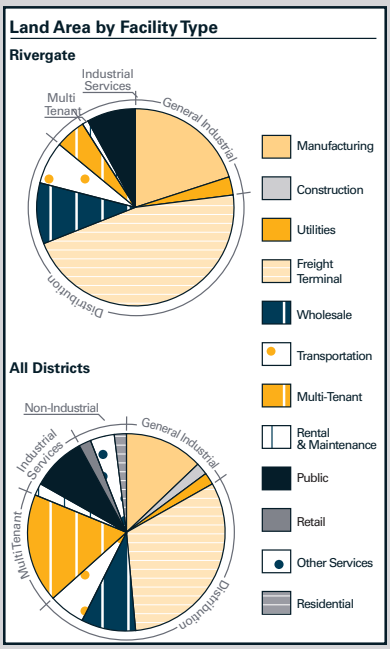
Oregon Steel Mill has plans for major reinvestment and expansion.

Columbia Sportswear distribution center.

Mix of Industries







ESTABLISHMENTS AND JOBS, 2002

	NAICS	Establishments	Jobs/Establishment	Jobs	% of All Jobs in Area: District	% of All Jobs in Area: All Districts
All Sectors		276	33	9,183	100%	100%
Production & Raw Materials		92	52	4,805	52%	34%
Manufacturing	311-339	73	63	4,565	50%	25%
Construction	236-238	13	13	165	2%	8%
Utilities & Waste	A	4	6	22	0%	1%
Distribution	127	26	3,283	36%	34%	
Wholesale	423-425	70	22	1,520	17%	14%
Transportation	481-493	57	31	1,763	19%	19%
Services	57	19	1,095	12%	32%	
Information	B	0	0	0	0%	1%
Management	551	*		*		
Rental & Maintenance	C	18	34	610	7%	6%
Government	921-928	*		*		
Retail	441-454	9	8	70	1%	5%
Training & Unions	D	0	0	0	0%	3%
Other Services	E	26	9	244	3%	11%
Highest Employment Industries						
Primary Metal Mfg.	331	7	227	1,587	17%	3%
Wholesale, Durable	423	38	21	795	9%	9%
Specialty Contractors	311	11	60	659	7%	3%
Fabricated Metal Mfg.	484	20	32	644	7%	4%
Amusement, Recreation	424	21	30	634	7%	5%
Social Assistance	488	21	25	535	6%	4%
Furniture & Related Mfg.	493	13	38	494	5%	1%
Repair and Maintenance	339	*		*		
Motor Vehicle Dealers	812	*		*		
Machinery Mfg.	336	5	63	315	3%	3%

NAICS: A = 221, 517, 562; B = 511-519, exc. 517; C = 532, 5617, 811, 8123; D = 6112-6117, 6213, 81393;
** Data suppressed for confidentiality*

Source: Covered Employment, Oregon Employment Department

FACILITY TYPES

Facility Type	Sites	Acres	Developed Area: Acres	Developed Area: Average Size	% of Occupied Developed Area: District	% of Occupied Developed Area: All Districts
Occupied Sites	298	3,798	2,645	8.88	100%	100%
General Industrial	68	760	596	8.76	23%	17%
Manufacturing	57	667	522	9.15	20%	13%
Construction	5	6	5	0.90	0%	2%
Utilities	6	87	69	11.50	3%	2%
Distribution	95	1,998	1,649	17.36	62%	47%
Freight Terminal	26	1,459	1,204	46.32	46%	32%
Wholesale	35	296	256	7.31	10%	9%
Transportation	34	243	189	5.56	7%	6%
Multi-Tenant	24	127	125	5.22	5%	18%
4+ Tenants	6	45	45	7.53	2%	12%
Industrial Services	69	871	241	3.49	9%	11%
Rental & Mtnc.	6	57	30	4.95	1%	2%
Public	63	814	211	3.34	8%	9%
Non-Industrial	42	40	35	0.83	1%	8%
Retail	4	11	11	2.84	0%	2%
Other Services	7	14	13	1.80	0%	4%
Residential	31	15	11	0.37	0%	2%
Unoccupied Sites	83	252	126	1.52		
Heavy Industrial	72	2,676	1,937	26.90	73%	48%

Source: Bureau of Planning

Site Conditions

ZONING

	Industrial			Employment		
	IH	IG1	IG2	EG1	EG2	Other
Acres	3,184	0	780	12	55	19
% of All Acres	79%	0%	19%	0%	1%	0%

** IH = Heavy Industrial. IG = General Industrial. EG = General Employment.*

Source: Bureau of Planning

IG1 and EG1 are small-lot zones

SITE SIZE

(acres)	< 1	1-2	3-9	10-19	20-49	50+
Sites	130	68	109	32	26	16
% of District	34%	18%	29%	8%	7%	4%
Acres	56	123	612	457	779	2,023
% of District	1%	3%	15%	11%	19%	50%

Average Site Size = 10.6

Source: Bureau of Planning

PROPERTY VALUES

	District ($ million)	Average per sq. ft.
Land	$640.76	$3.90
Improvements	$1,453.10	$8.83
Total	$2,093.9	$12.73

High Land Value Sites (exceeding $6/sq. ft.)

Sites	40
Acres	269.5
% of District	7%

Average Improvements/ Land Value Ratio = 2.27

** Square footage does not include open space.*

Source: Multnomah County Assessment & Taxation, March - July 2004

ENVIRONMENTAL CONSTRAINTS

	Acres	% of District
Open Space*	274	7%
Constrained Land (Composite)	1,661	41%
100 Year Floodplain	804	20%
Other 1996 Inundation Area	512	13%
Title 3 Wetlands	251	6%
10% or Greater Slope	374	9%
Goal 5 Significant Habitat	1,433	35%
Open Space or Constrained	1,670	41%

Potential Cleanup Sites

55 sites with cleanup or investigation projects;

7 cleaned or investigated sites with "no further action required".

** OS, p, n zones; mitigation sites; public drainage; 10-year floodplain*

Source: Oregon DEQ - cleanup sites

PROXIMITY TO TRANSPORTATION INFRASTRUCTURE

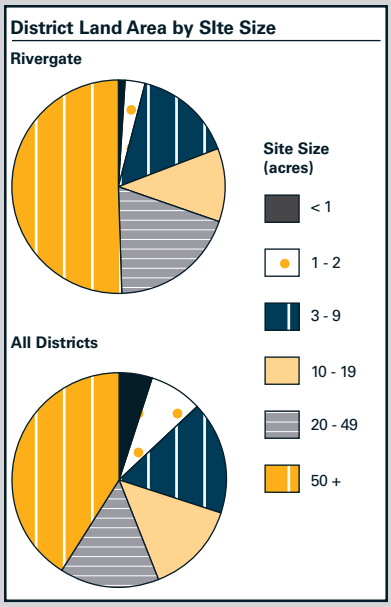
TRUCK & TRANSIT ACCESS

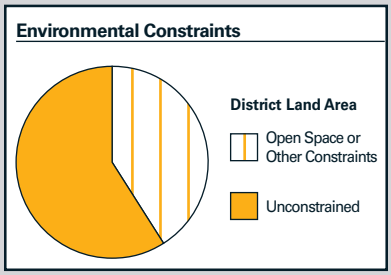
Miles from Site	Major Truck Street Acres	Major Truck Street % of District	Freeway Ramp Acres	Freeway Ramp % of District	Miles from Site	Bus Stop Acres	Bus Stop % of District
< 1	2,337	58%	598	15%	< 1/4	1,710	42%
< 2	4,050	100%	953	24%	< 1/2	3,703	91%
< 5			4,021	99%			

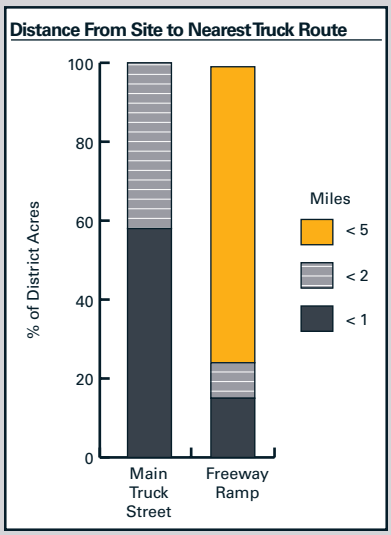
MULTIMODAL FREIGHT ACCESS

	Airport Acres	Airport % of District	Railroad Acres	Railroad % of District	Harbor Acres	Harbor % of District
Adjacent	0	0%	2,468	61%	1,867	46%
< 5	80	2%				

Source: Bureau of Planning







RIVERGATE DISTRICT

Growth Capacity

A 120-acre vacant site on North Lombard Street and 60 vacant acres on Leadbetter Road, near Terminal 6.

Vacant site on North Lombard Street.

New construction near Terminal 6.

VACANT LAND (UNIMPROVED ACRES) 2002

	All Vacant Land	Buildable, Private Land*			Partly Buildable Tier F**	Public & Utility Sites	Land for Sale
		Total	Unconstrained Tier A	Buildable Tier B - E			
All Vacant Sites	1,093	544.6	29.6	514.9	291.2	163.6	45.0
Potential Cleanup Sites	219	42.8	3.1	39.7	123.6	47.5	

** Buildable private land includes all vacant land minus identified open space, Tier F, and public and utility sites with exceptions. Tiers B-E identify sites that may be affected by availability or use constraints.*

*** Tier F land is affected by either 100-year floodplain, 1996 inundation area, Title 3 wetland, slope exceeding 10 percent, or Metro Goal 5 habitat inventory. Identified open space is not included.*

Sources: Metro - vacant; Bureau of Planning - Tiers A-F; CoStar - land for sale

OTHER POTENTIALLY UNDERUTILIZED PROPERTY

	Cleanup/Investigation			Industrial Land in Residential Use**		Developed Space on Market, April 2004	
	Sites	Acres	% of District	Sites	Acres	Sites	Area
All Land in Sites	57	1,258	31%	31	15	For Sale	
Developed/Occupied Portion	21	994	25%			9	825,171 sf
Underutilized Portion*						For Lease	
(Potential Brownfields)	36	264	7%			26	1,985,405 sf
Unoccupied Sites	7	82	2%				
Vacant Land on Occupied Sites	29	182	4%				

** Unoccupied sites (no tenant) and vacant (unimproved) parts of sites are underutilized. Cleanup liability may complicate redevelopment on some parts of these sites.*

*** Non-conforming residential use on site zoned or designated in* Comprehensive Plan *as industrial or general employment.*

Sources: CoStar - space for sale or lease; Oregon DEQ - cleanup sites; Multnomah County Assessment & Taxation - market property value.

ACCESS TO FINANCIAL TOOLS

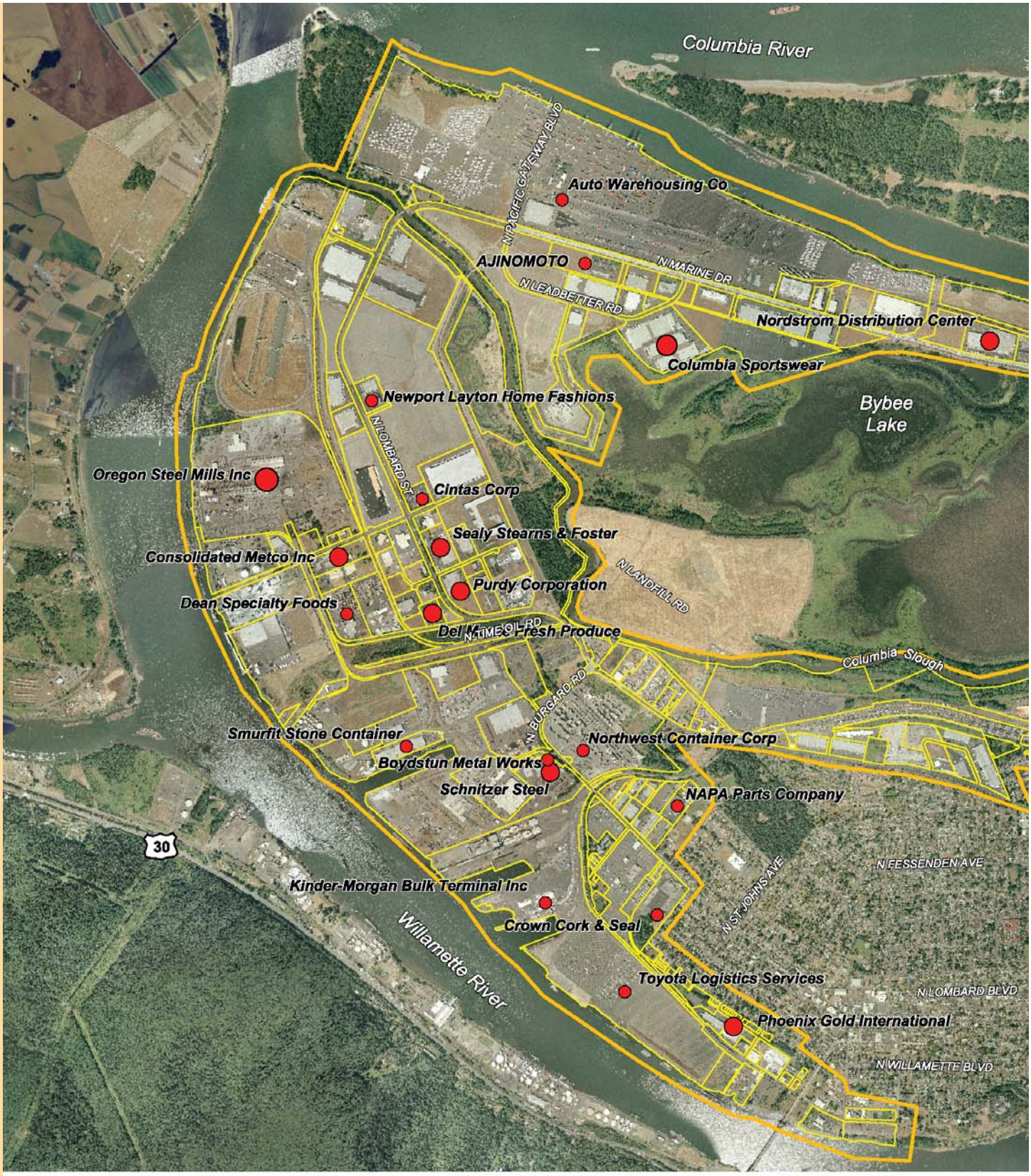
	Sites	% of District	Acres	% of District
Urban Renewal Area	78	20%	222	5%
Enterprise Zone	370	97%	3,967	98%
New Market Tax Credits	176	46%	1,337	33%

Source: Portland Development Commission

CAPITAL IMPROVEMENTS PROGRAM PROJECTS

Capital projects in the current City of Portland CIP that are expected to expand the district's development capacity:

- Lombard rail overpass (PDT000040) - Construct overpass to replace two at-grade rail crossings.
- Sewer pump station (BES005689) - Replace pump station at Rivergate Boulevard and Time Oil Road.
- Water main and hydrants (WTR000066) – 3,400 feet of new main at N Kelly Point Park Rd to N Suttle Rd.
- Non-potable water system (WTR000153) – Install well water system for irrigation and process water to Rivergate businesses in three phases.
- Water mains (WTR000130) - Install water mains to complete loop in the Rivergate area in response to growth.
- Water main and hydrants (WTR000365 and WTR000381) - new and replacement mains on NE 185th and N Denver at Columbia Blvd.



Rivergate District

Employment

- 100 - 249 Employees
- 250 - 499 Employees
- 500+ Employees

Site Boundary

Inventory Area Boundary

N

0 485 970 1,940 2,910 3,880 Feet

RIVERGATE DISTRICT

Information Sources:
- Orthophotography - Metro Regional Consortium, 10' or 20' pixel resolution (2003).
- Sites - Bureau of Planning, based on taxlot information provided by City of Portland Corporate Geographic Information System and Multnomah County Assessment and Taxation (February 2003).
- Employers - Inside Prospects (2003).

- Information sources are described further in Chapter 3.

Investing in Portland's Future

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Rivergate Facilities

Heavy Industrial
- Heavy Industrial (overlay)

General Industrial
- Manufacturing
- Utilities
- Construction

Distribution
- Freight
- Transportation
- Wholesale

Multi-Tenant
- 4 + Employers
- 2-3 Employers

Industrial Services
- Public
- Rental & Maintenance

Non-Industrial
- Retail
- Services
- Residential

- Open Space
- Vacant Land
- 3 + Story (overlay)
- Structures >100,000 Sq Ft
- Other Structures
- Site Boundary
- Inventory Area Boundary

Transportation Infrastructure
- Railroads
- Freeways
- Major Truck Streets
- Streets

N

0 470 940 1,880 2,820 3,760 Feet

RIVERGATE DISTRICT

Information Sources:
- Facilities - Bureau of Planning, based on employment data by Inside Prospects (2003), supplemented by InfoUSA data (2003) and Bureau of Planning field inspection (2004). Utility and public facilities also include unoccupied sites in corresponding ownership. Bureau of Planning identified freight terminal and heavy industrial sites from use and scale characteristics.
- Railroads - Metro from 2000 Regional Transportation Plan.
- Truck Streets - Portland Office of Transportation from Transportation System Plan (2002).

- Information sources and methodology are described further in Chapter 3.

Investing in Portland's Future

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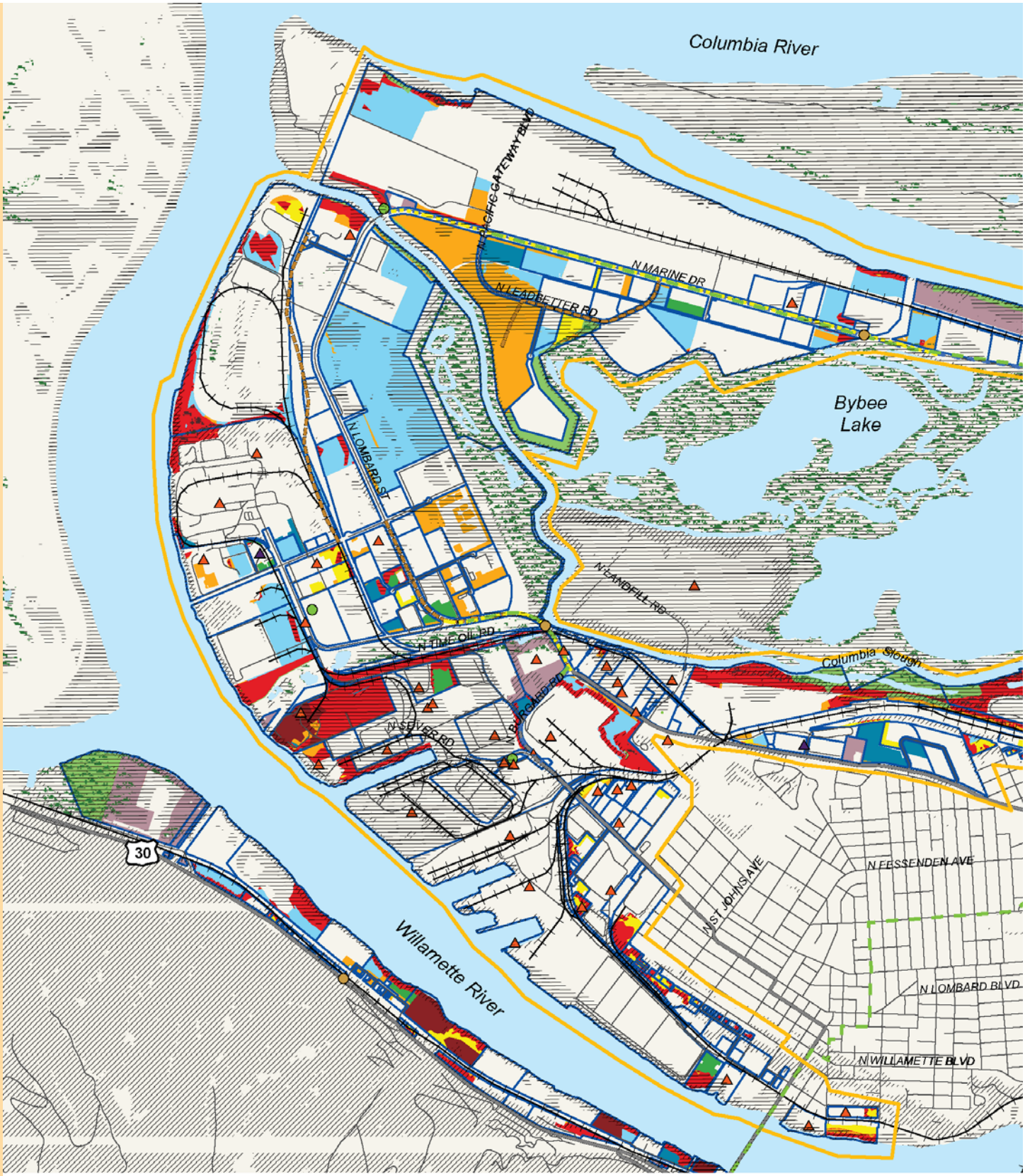

Rivergate Growth Capactiy

Tiers - Vacant Land

- A - No Constraints
- B - Land Banked
- C - Infill
- D - Underutilized
- E - Other
- F - Partly Buildable
- Vacant Open Space
- Public/Utilities
- Unoccupied DEQ Sites
- Site Boundary
- Inventory Area Boundary

Capital Improvements Program

- Bureau of Environmental Services Projects
- Portland Office of Transportation Projects
- Bureau of Water Works Projects

Transportation System Plan

- Freight Projects

Potential Cleanup Sites

- Active Investigation or Cleanup
- No Further Action Required

Environmental Constraints

- Wetlands
- Slope > 10%
- 100 yr & 1996 Floodplains

Transportation Infrastructure

- Railroads
- Freeways
- Major Truck Streets
- Streets

N

0 480 960 1,920 2,880 3,840 Feet

Information Sources:
- Vacant land - tiers defined by Bureau of Planning from Metro (2002) vacant land data. Tier F is affected by the floodplain, slope, or wetland constraints shown or Metro Goal 5 habitat resources (2004). Open space includes OS, p, and n zones from BOP zoning (2004) and mitigation sites, 10-year floodplain, and public drainage facilities from Portland Bureau of Environmental Services (2004).
- Capital Improvements Program projects - City of Portland Corporate Geographic Information System (2004).
- Transportation System Plan projects - Portland Office of Transportation (2004).
- Potential Cleanup Sites - Oregon Department of Environmental Quality from Environmental Cleanup Site Information database (April 2004) mapped in approximate locations by Portland Bureau of Environmental Services. Data in ECSI is "working information" and some may be unconfirmed, outdated, or incomplete.
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Investing in Portland's Future

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RIVERGATE DISTRICT

The Airport District

Lufthansa jet taking off at Portland International Airport.

Main Features

- A regional freight hub location centered on Portland International Airport
- A mix of industries focused on distribution, including nearly a third of the metro area's transportation jobs
- Room to grow with 770 acres of vacant buildable land and 430 acres of constrained, partly buildable land

The expansive 5,700-acre Airport District is Oregon's hub location for air transportation. Portland International Airport (PDX) is the defining feature of the district. The PDX complex (Port of Portland ownership) spans 2,700 acres and has a public and private workforce of 8,000. The runway site itself covers an expansive 1,100 acres, surrounded by aircraft maintenance, air cargo, military, and travelers' services facilities.

The distribution sector employs half of the district's 24,000 workers, the highest share among Portland's industrial districts. Its specialty industries relative to other Portland industrial districts and the region are air transportation, trucking, transportation support activities, durable goods wholesalers, and fabricated metal products manufacturing. Thirty percent of the metro area's 30,000 transportation jobs are here.

Site conditions reflect the district's function as a distribution hub. Located between the I-5 and I-205 freeways, 63 percent of the district acreage is on sites within one mile of a freeway ramp, and 97 percent is within two miles. Sites larger than 50 acres make up 59 percent of the district (the airport accounts for 47 percent). Heavy industrial facilities use 45 percent of the occupied developed land. Pockets of mixed commercial and industrial development with General Employment zoning (10 percent of the district) are concentrated along Airport Way, 82nd Avenue, and Martin Luther King Boulevard.

The district has 770 acres of vacant buildable private land, 42 percent of the total supply among Portland's industrial districts. All but 16 acres of that land is affected by availability or use limitations, and 320 acres of it is on sites that may be affected by environmental cleanup or investigation. An additional 430 acres of partly buildable vacant land is affected by floodplain or habitat constraints. Most of the district's buildable vacant land is within the PDX complex or at Cascade Station east of PDX.

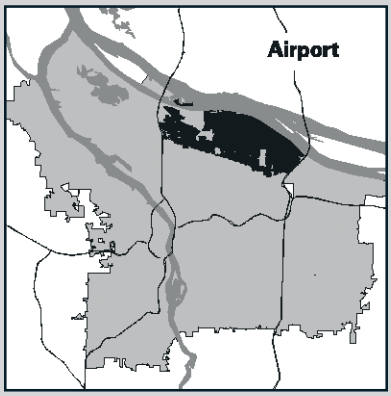
LARGEST EMPLOYERS

	INDUSTRY	JOBS
Horizon Air-Flight	Air Transportation Scheduled	500+
Sapa Anodizing	Special Industry Machinery Manufacturing	500+
Huntleigh USA	Detective Guard & Armored Car Services	250-499
Nabisco Inc. Bakery	Cookies & Crackers	250-499
United Airlines	Air Transportation Scheduled	250-499
Jubitz Corp. Admin. Office	Gasoline Service Stations	250-499
Yellow Freight Systems	Trucking Except Local	250-499
Halton Company	Construction & Mining Machinery	250-499
Market Transport Ltd.	Local Trucking Without Storage	250-499
Owens Brockway Glass	Glass Containers	250-499

Source: Inside Prospects, 2003

LOCATION

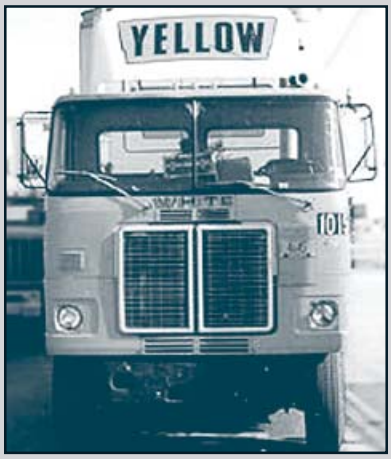
The Airport District in NE Portland is the middle portion of the Columbia Corridor between I-5 and I-205.



SIZE

- 874 sites on 5,686 acres
- 37 percent of the city's industrial land.
- 23,938 jobs in 892 establishments (2002).

Fed Ex cargo planes at Portland International Airport.



Yellow freight is the district's largest trucking employer.

Delta Air Cargo at Portland International Airport.

Mix of Industries

ESTABLISHMENTS AND JOBS, 2002

	NAICS	Estab-lishments	Jobs/Estab-lishment	Jobs	% of All Jobs in Area: District	% of All Jobs in Area: All Districts
All Sectors		**892**	**27**	23,938	100%	100%
Production & Raw Materials		225	25	5,693	24%	34%
Manufacturing	311-339	127	32	4,085	17%	25%
Construction	236-238	76	17	1,270	5%	8%
Utilities & Waste Mgmt.	A	17	17	292	1%	1%
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Management	551	8	14	112	0%	4%
Rental & Maintenance	C	84	15	1,259	5%	6%
Government	921-928	*		*		
Retail	441-454	74	20	1,470	6%	5%
Training & Unions	D	11	11	117	0%	3%
Other Services	E	164	20	3,243	14%	11%
Highest Employment Industries						
Air Transportation	481	25	172	4,303	18%	4%
Wholesale, Durable	423	126	19	2,393	10%	9%
Transportation Support	488	47	42	1,984	8%	4%
Truck Transportation	484	45	34	1,544	6%	4%
Fabricated Metal Mfg.	332	45	24	1,092	5%	4%
Specialty Contractors	238	56	19	1,060	4%	6%
Food & Drinking Places	722	36	23	811	3%	2%
Food Manufacturing	311	9	86	778	3%	3%

NAICS: A = 221, 517, 562; B = 511-519, exc. 517;
C = 532, 5617, 811, 8123; D = 6112-6117, 6213, 81393;
** Data supressed for confidentiality.*

Source: Covered Employment, Oregon Employment Department

FACILITY TYPES

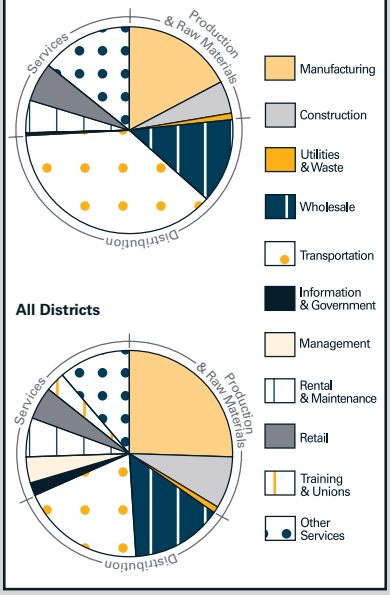
Facility Type	Sites	Total Acres	% of Occupied** Developed Area*: Acres	% of Occupied** Developed Area*: Average Size	Developed Area: District	Developed Area: All Districts
Occupied Sites**	729	5,107	3,943	5.41	100%	100%
General Industrial	84	304	**257**	3.06	**7%**	17%
Manufacturing	50	242	199	3.97	5%	13%
Utilities	8	31	30	3.71	1%	2%
Construction	26	31	28	1.07	1%	2%
Distribution	150	2,293	**1,867**	12.45	**47%**	47%
Freight Terminal	7	1,409	1,349	192.69	34%	32%
Wholesale	108	340	291	2.70	7%	9%
Transportation	35	544	227	6.48	6%	6%
Multi-Tenant	117	1,035	**820**	7.01	**21%**	18%
4+ Tenants	35	855	648	18.52	16%	12%
Industrial Services	95	992	**589**	6.20	**15%**	11%
Public	56	889	505	9.01	13%	9%
Rental & Mtnc.	39	103	84	2.16	2%	2%
Non-Industrial	283	485	**411**	1.45	**10%**	8%
Retail	29	80	79	2.73	2%	2%
Other Services	44	241	226	5.13	6%	4%
Residential	210	164	106	0.50	3%	2%
Unoccupied Sites	145	580	116	0.80		
Heavy Industrial	24	2,335	1,759	73.29	45%	48%

** Developed area does not include vacant (unimproved) land or open space.*
*** Occupied sites are those with a current tenant.*

Source: Bureau of Planning

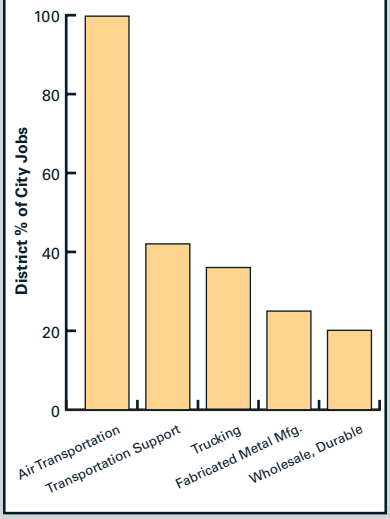
Jobs by Sector, 2002

Airport



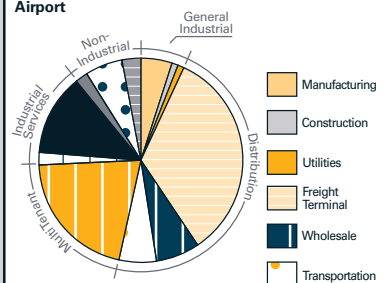
All Districts

Largest District Specialties

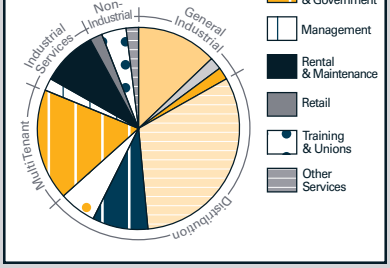


Land Area by Facility Type

Airport



All Districts



AIRPORT DISTRICT

Site Conditions

ZONING

	Industrial			Employment		
	IH	IG1	IG2	EG1	EG2	Other
Acres	229	0	4,652	0	559	246
% of All Acres	4%	0%	82%	0%	10%	4%

** IH = Heavy Industrial. IG = General Industrial. EG = General Employment.*
IG1 and EG1 are small-lot zones

Source: Bureau of Planning

SITE SIZE

(acres)	< 1	1-2	3-9	10-19	20-49	50+
Sites	448	221	1239	45	15	16
% of District	51%	25%	15%	5%	2%	2%
Acres	194	391	657	651	445	3,349
% of District	3%	7%	12%	11%	8%	59%

Average Site Size = 6.51

Source: Bureau of Planning

PROPERTY VALUES

	District ($ million)	Average per sq. ft.*
Land	$1,101.96	$4.71
Improvements	$1,251.22	$5.35
Total	$2,353.2	$10.07

High Land Value Sites (exceeding $6/sq. ft.)

Sites	270
Acres	838.2
% of District	15%

Average Improvements/ Land Value Ratio = 1.14

** Square footage does not include open space.*

Source: Multnomah County Assessment & Taxation, March - July 2004

ENVIRONMENTAL CONSTRAINTS

	Acres	% of District
Open Space*	321	6%
Constrained Land (Composite)	1,315	23%
100 Year Floodplain	368	6%
Other 1996 Inundation Area	175	3%
Title 3 Wetlands	144	3%
10% or Greater Slope	40	1%
Goal 5 Significant Habitat	1,008	18%
Open Space or Constrained	1,344	24%

Potential Cleanup Sites

41 sites with cleanup or investigation projects;

14 cleaned or investigated sites with "no further action required"

** OS, p, n zones; mitigation sites; public drainage; 10-year floodplain*

Source: Oregon DEQ - cleanup sites

PROXIMITY TO TRANSPORTATION INFRASTRUCTURE

TRUCK & TRANSIT ACCESS

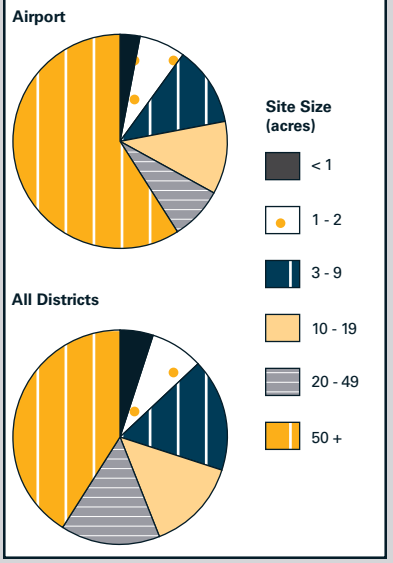
Miles from Site	Major Truck Street Acres	Major Truck Street % of District	Freeway Ramp Acres	Freeway Ramp % of District	Miles from Site	Bus Stop Acres	Bus Stop % of District
< 1	3,426	60%	3,594	63%	< 1/4	2,424	43%
< 2	5,668	100%	5,524	97%	< 1/2	4,999	88%
< 5	5,686	100%	5,687	100%			

MULTIMODAL FREIGHT ACCESS

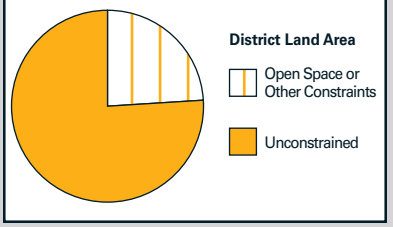
	Airport Acres	Airport % of District	Railroad Acres	Railroad % of District	Harbor Acres	Harbor % of District
Adjacent	2,685	47%	280	5%	0	0%
< 5	5,686	100%				

Source: Bureau of Planning

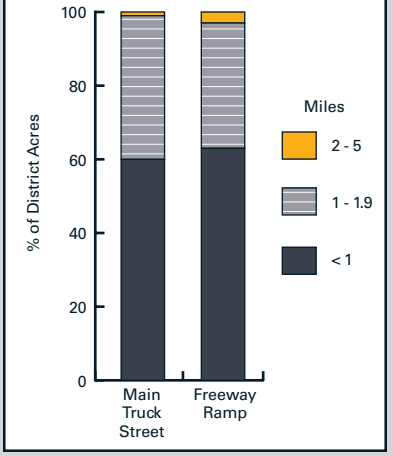
District Land Area by SIte Size



Environmental Constraints



Distance From Site to Nearest Truck Route



AIRPORT DISTRICT

Growth Capacity

Cascade Station/Portland International Center development.

VACANT LAND (UNIMPROVED ACRES) 2002

	All Vacant Land	Buildable, Private Land*			Partly Buildable Tier F**	Public & Utility Sites	Land for Sale
			Unconstrained	Buildable			
		Total	Tier A	Tier B - E			
All Vacant Sites	1,440	766	16.4	713.8	425.7	132.8	134.7
Potential Cleanup Sites	536	318	0.0	315.2	158.7	33.3	

** Tiers B-E do not have Tier F buildability constraints but availability or use may be limited.*
*** Tier F land is affected by either 100-year floodplain, 1996 inundation area, Title 3 wetland, slope exceeding 10 percent, or Metro Goal 5 habitat inventory.*

Sources: Metro - vacant; Bureau of Planning - Tiers A-F; CoStar - land for sale

Vacant land at PDX.

OTHER POTENTIALLY UNDERUTILIZED PROPERTY

	Cleanup/Investigation			Industrial Land in Residential Use**		Developed Space on Market, April 2004	
	Sites	Acres	% of District	Sites	Acres	Sites	Area
All Land in Sites	41	2,672	47%	210	164	For Sale	
Developed/Occupied Portion	16	2,131	37%			18	478,160 sf
Underutilized Portion*						For Lease	
(Potential Brownfields)	25	541	10%			55	1,842,636 sf
Unoccupied Sites	6	10	.2%				
Vacant Land on Occupied Sites	19	531	9%				

** Unoccupied sites (no tenant) and vacant (unimproved) parts of sites are underutilized. Cleanup liability may complicate redevelopment on some parts of these sites.*
*** Non-conforming residential use on site zoned or designated in* Comprehensive Plan *as industrial or general employment.*

Sources: CoStar - space for sale or lease; Oregon DEQ - cleanup sites; Multnomah County Assessment & Taxation - market property value.

Vacant land east of PDX.

ACCESS TO FINANCIAL TOOLS

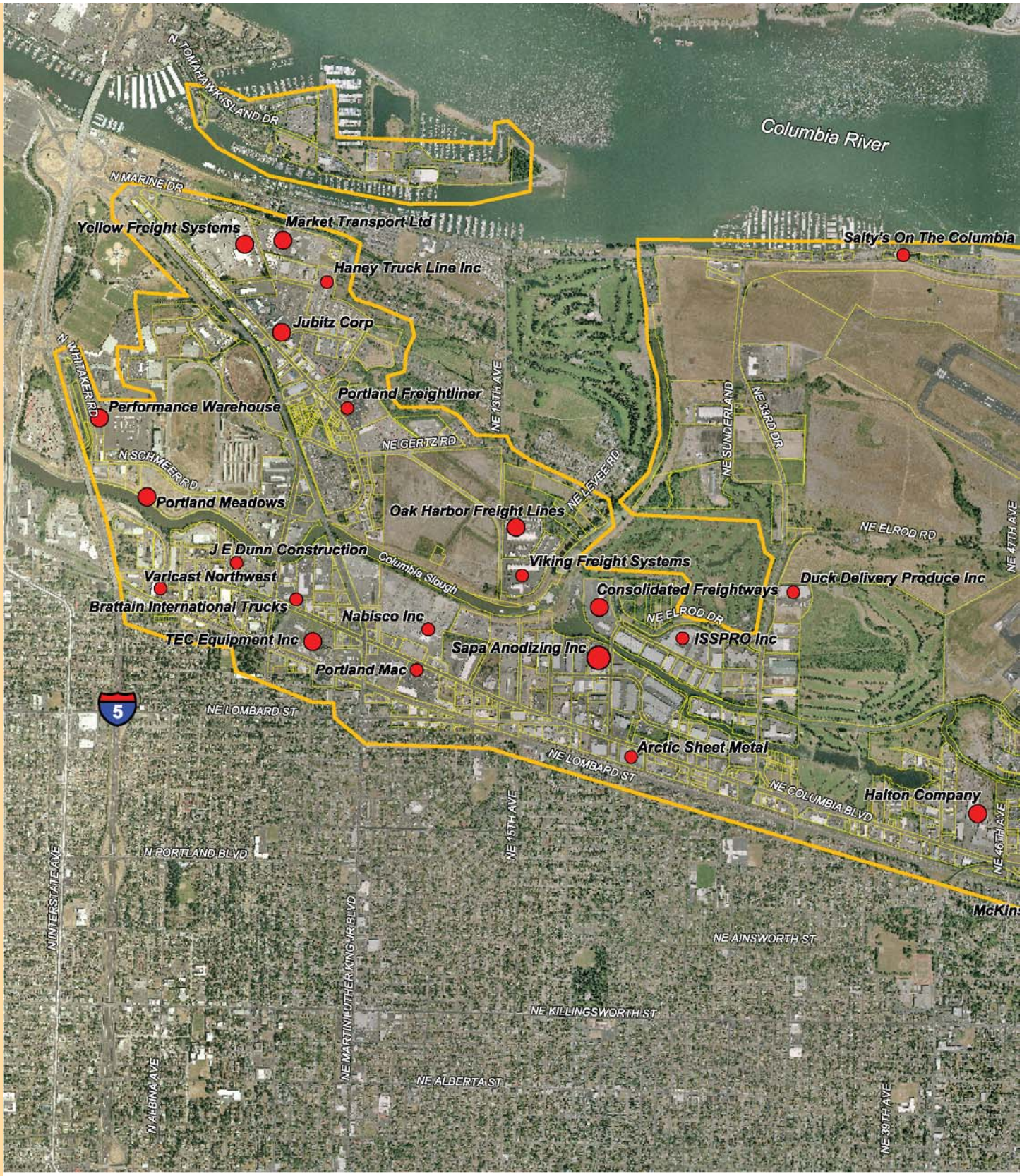
	Sites	% of District	Acres	% of District
Urban Renewal Area	106	12%	1,002	18%
Enterprise Zone	862	99%	5,633	99%
New Market Tax Credits	534	61%	4,619	82%

Source: Portland Development Commission

CAPITAL IMPROVEMENTS PROGRAM PROJECTS

Portland CIP projects that will expand the district's development capacity:

- Sewer pipe, pump stations (BES005413) - Colwood to 42nd at Columbia Boulevard.
- Freight mobility improvements (PDT000046) - 82nd to I-205, Columbia Boulevard to Killingworth.
- NE Columbia turn lane (PDT000117) - at NE MLK Boulevard.
- NE 33rd slough crossing (PDT000088) – replace east half of NE 33rd crossing.
- NE 33rd bridge upgrade (PDT000087) – bridge over Lombard and railroad.
- Airport Way Non-potable water system (WTR000152) - I-205 to NE 82nd.



Airport District

Employment

- 100 - 249 Employees
- 250 - 499 Employees
- 500+ Employees

Site Boundary

Inventory Area Boundary

N

0 430 860 1,720 2,580 3,440 Feet

Information Sources:
- Orthophotography - Metro Regional Consortium, 10' or 20' pixel resolution (2003).
- Sites - Bureau of Planning, based on taxlot information provided by City of Portland Corporate Geographic Information System and Multnomah County Assessment and Taxation (February 2003).
- Employers - Inside Prospects (2003).

- Information sources are described further in Chapter 3.

Investing in Portland's Future

PDC
PORTLAND DEVELOPMENT COMMISSION

CITY OF PORTLAND, OREGON
BUREAU OF Planning

AIRPORT DISTRICT

Airport Facilities

Heavy Industrial
- Heavy Industrial (overlay)

General Industrial
- Manufacturing
- Utilities
- Construction

Distribution
- Freight
- Transportation
- Wholesale

Multi-Tenant
- 4 + Employers
- 2-3 Employers

Industrial Services
- Public
- Rental & Maintenance

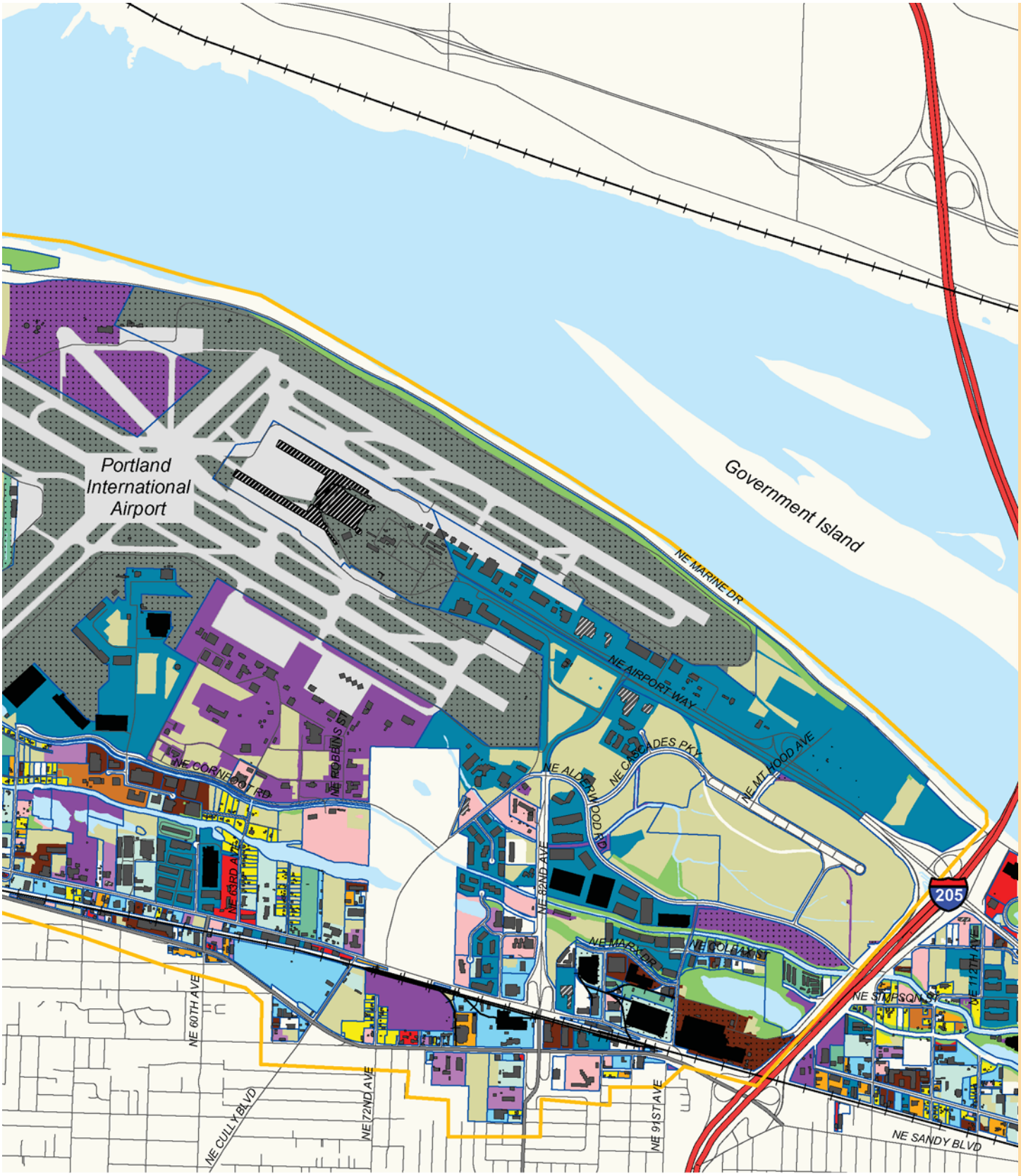
Non-Industrial
- Retail
- Services
- Residential

- Open Space
- Vacant Land
- 3 + Story (overlay)
- Structures >100,000 Sq Ft
- Other Structures
- Site Boundary
- Inventory Area Boundary

Transportation Infrastructure
- Railroads
- Freeways
- Major Truck Streets
- Streets

N

0 415 830 1,660 2,490 3,320 Feet



Information Sources:
- Facilities - Bureau of Planning, based on employment data by Inside Prospects (2003), supplemented by InfoUSA data (2003) and Bureau of Planning field inspection (2004). Utility and public facilities also include unoccupied sites in corresponding ownership. Bureau of Planning identified freight terminal and heavy industrial sites from use and scale characteristics.
- Railroads - Metro from 2000 Regional Transportation Plan.
- Truck Streets - Portland Office of Transportation from Transportation System Plan (2002).

- Information sources and methodology are described further in Chapter 3.

Investing in Portland's Future

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BUREAU OF Planning

AIRPORT DISTRICT

Airport Growth Capactiy

Tiers - Vacant Land

- A - No Constraints
- B - Land Banked
- C - Infill
- D - Underutilized
- E - Other
- F - Partly Buildable
- Vacant Open Space
- Public/Utilities
- Unoccupied DEQ Sites
- Site Boundary
- Inventory Area Boundary

Capital Improvements Program

- Bureau of Environmental Services Projects
- Portland Office of Transportation Projects
- Bureau of Water Works Pojects

Transportation System Plan

- Freight Projects

Potential Cleanup Sites

- Active Investigation or Cleanup
- No Further Action Required

Environmental Constraints

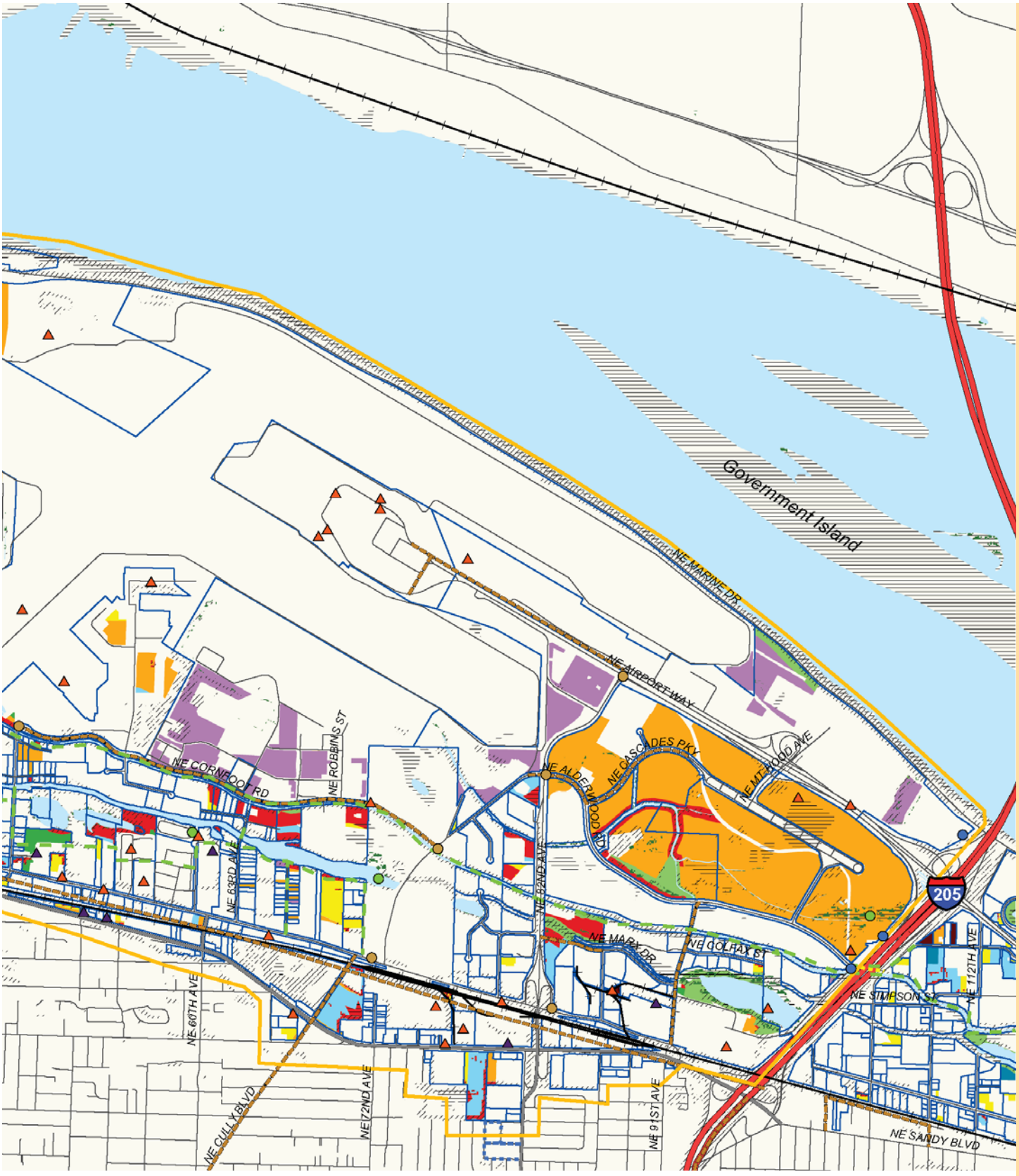
- Wetlands
- Slope > 10%
- 100 yr & 1996 Floodplains

Transportation Infrastructure

- Railroads
- Freeways
- Major Truck Streets
- Streets

N

0 425 850 1,700 2,550 3,400 Feet



AIRPORT DISTRICT

Information Sources:
- Vacant land - tiers defined by Bureau of Planning from Metro (2002) vacant land data. Tier F is affected by the floodplain, slope, or wetland constraints shown or Metro Goal 5 habitat resources (2004). Open space includes OS, p, and n zones from BOP zoning (2004) and mitigation sites, 10-year floodplain, and public drainage facilities from Portland Bureau of Environmental Services (2004).
- Capital Improvements Program projects - City of Portland Corporate Geographic Information System (2004).
- Transportation System Plan projects - Portland Office of Transportation (2004).
- Potential Cleanup Sites - Oregon Department of Environmental Quality from Environmental Cleanup Site Information database (April 2004) mapped in approximate locations by Portland Bureau of Environmental Services. Data in ECSI is "working information" and some may be unconfirmed, outdated, or incomplete.
- Environmental Constraints - wetlands and 1996 flood inundation area from Metro Title 3 regulations. Modeled 100-year floodplain by Metro (2002).

- Information sources and methodology are described further in Chapter 3.

Investing in Portland's Future

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The Columbia Corridor East District

Flex space, a prevalent construction type in Columbia Corridor East, typically combines distribution, access and curb appeal.

Main Features

- A "business park" mix of employment land uses with nearly half of its jobs in the service sectors
- High employment density of 15 jobs per developed acre
- A dominant pattern of "flex space" development reflecting a high, 41 percent share of multi-tenant facilities
- Room to grow with 250 acres of vacant buildable land and 200 acres of contrained, partly buildable land

Columbia Corridor East is a mixed industrial/employment district. Its high concentration of land in multi-tenant and non-industrial service facilities contrasts with the dominant concentrations of distribution and heavy industrial facilities that form the freight hub character in the rest of the Columbia Corridor.

Services are the leading employment sector here, providing 47 percent of the district's 14,000 jobs. As a result, employment density is 15 jobs per developed acre, compared to 6 for the entire Columbia Corridor. The specialty industries relative to Portland's other industrial districts and the region are specialty construction contractors, durable goods wholesalers, fabricated metal products manufacturing, human resource programs (e.g., Multnomah County Education Service District), and trucking.

Flex space is a defining feature of the district, a common type of industrial construction since the 1980s that combines a "business park" mix of commercial and industrial uses and the flexibility to adjust building spaces for one or multiple tenants over time. Multi-tenant facilities make up 41 percent of the developed occupied land in Columbia Corridor East, compared to 18 percent in all of Portland's industrial districts. In contrast, heavy industrial facilities use only 7 percent of the district's developed occupied land, compared to 48 percent in all districts. The district's higher concentration of commercial and flex facilities has not driven up land values in this outlying location of the city. Average land value here is $3.72 per square foot, compared to $4.34 in all districts. Also, site size here is concentrated in the 3-20 acre range compared to other districts.

The district has 250 acres of vacant, buildable private land and another 200 acres of partly buildable vacant land affected by floodplain or habitat constraints. The Airport Way Urban Renewal Area extends to 87 percent of the district, which has facilitated its substantial growth in the 1990s.

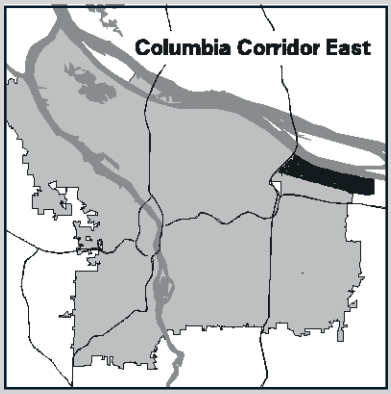
LARGEST EMPLOYERS

	INDUSTRY	JOBS
Mult. Education Svc. Dist.	Elementary and Secondary Schools	500+
Portland Habilitation Ctr.	Job Training and Related Services	500+
Leatherman Tool Group	Hand and Edge Tools	500+
Costco Wholesale Corp.	Department Stores	250-499
Atlas Copco Wagner Inc.	Mining Machinery	250-499
Medical Mgmt. Intl.	Offices of Holding Companies	250-499
Corporate Express	Stationery and Office Supplies	250-499
T R M Copy Centers	Office Equipment	250-499
Henkels & McCoy Inc.	Water Sewer and Utility Lines	250-499

Source: Inside Prospects, 2003

LOCATION

The Columbia Corridor East District is the portion of the Columbia Corridor situated east of the I-205 freeway.



SIZE

- 353 sites on 1,726 acres
- 11 percent of the city's industrial land
- 13,978 jobs in 610 establishments (2002)

Leatherman Tool manufacturing.

Corporate Express is an office supplies wholesaler.

Mix of Industries

ESTABLISHMENTS AND JOBS, 2002

	NAICS	Establishments	Jobs/Establishment	Jobs	% of All Jobs in Area: District	% of All Jobs in Area: All Districts
All Sectors		610	23	13,978	100%	100%
Production & Raw Materials		169	27	4,519	32%	34%
Manufacturing	311-339	85	31	2,636	19%	25%
Construction	236-238	71	22	1,532	11%	8%
Utilities & Waste	A	11	28	310	2%	1%
Distribution		211	14	2,938	21%	34%
Wholesale	423-425	142	12	1,742	12%	14%
Transportation	481-493	69	17	1,196	9%	19%
Services		280	41	6,521	47%	32%
Information	B	6	13	79	1%	1%
Management	551	6	26	154	1%	4%
Rental & Maintenance	C	45	30	1,363	10%	6%
Retail	441-454	69	25	1,701	12%	5%
Training & Unions	D	12	10	88	1%	3%
Government & Other Svcs	921 - 928 & E	92	23	3,136	15%	11%
Highest Employment Industries						
Admin. & Support Svcs	561	23	51	1,167	8%	3%
Specialty Contractors	238	53	21	1,118	8%	6%
Wholesale, Durable	423	75	13	985	7%	9%
Fabricated Metal Mfg.	332	18	51	917	7%	4%
Human Resource Progs.	923	*		*		
Wholesale, Nondurable	424	32	21	665	5%	5%
Food & Drinking Places	722	18	31	550	4%	2%
Truck Transportation	484	10	49	494	4%	4%
Professional and Tech Svcs	541	27	18	473	3%	2%
General Mdse. Stores	452	*		*		

NAICS: A = 221, 517, 562; B = 511-519, exc. 517;
C = 532, 5617, 811, 8123; D = 6112-6117, 6213, 81393;
* Data suppressed for confidentiality.

Source: Covered Employment, Oregon Employment Department

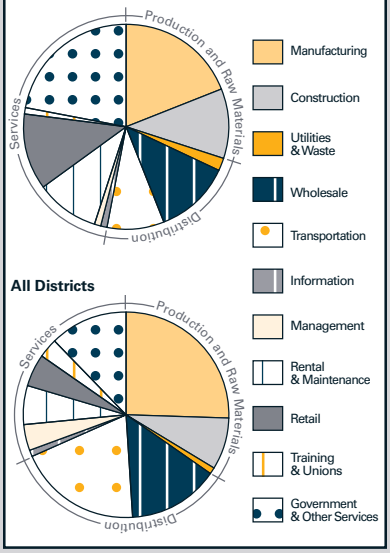
FACILITY TYPES

Facility Type	Sites	Total Acres	% of Occupied** Developed Area*: Acres	% of Occupied** Developed Area*: Average Size	Developed Area: District	Developed Area: All Districts
Occupied Sites**	280	1,221	899	3.21	100%	100%
General Industrial	57	216	183	3.21	20%	17%
Manufacturing	32	128	103	3.21	11%	13%
Construction	21	67	60	2.86	7%	2%
Utilities	4	21	20	5.08	2%	2%
Distribution	36	161	108	3.00	12%	47%
Freight Terminal	2	19	8	4.09	1%	32%
Wholesale	25	109	71	2.83	8%	9%
Transportation	9	33	29	3.22	3%	6%
Multi-Tenant	61	434	371	6.08	41%	18%
4+ Tenants	37	316	282	7.63	31%	12%
Industrial Services	37	218	89	2.41	10%	11%
Rental & Mtnc.	8	35	35	4.34	4%	2%
Public	29	183	54	1.85	6%	9%
Non-Industrial	89	192	148	1.66	16%	8%
Retail	18	67	55	3.08	6%	2%
Other Services	27	93	73	2.69	8%	4%
Residential	44	32	20	0.46	2%	2%
Unoccupied Sites	73	505	30	0.41		
Heavy Industrial	9	139	65	7.22	7%	48%

* Developed area does not include vacant (unimproved) land or open space.
** Occupied sites are those with a current tenant.

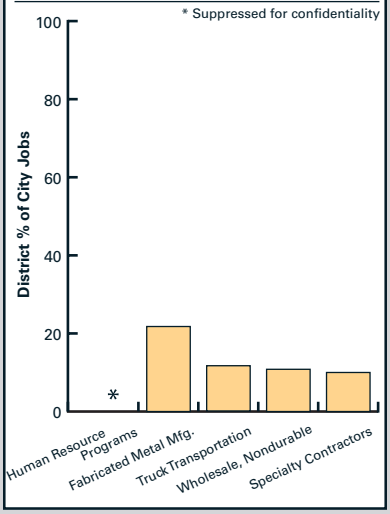
Source: Bureau of Planning

Jobs By Sector, 2002
Columbia Corridor East

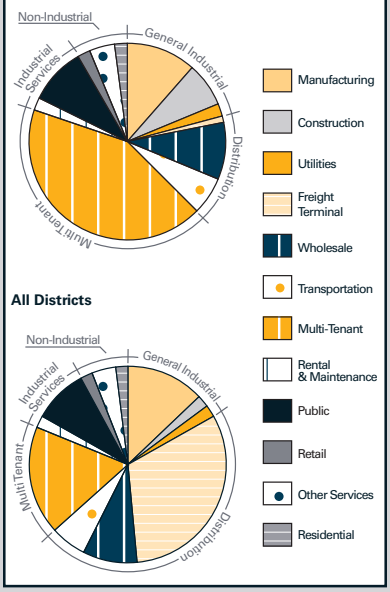


All Districts

Largest District Specialties



Land Area by Facility Type
Columbia Corridor East



All Districts

Site Conditions

ZONING

	Industrial			Employment		
	IH	IG1	IG2	EG1	EG2	Other
Acres	0	0	1,495	0	231	0
% of All Acres	0%	0%	87%	0%	13%	0%

* IH = Heavy Industrial. IG = General Industrial. EG = General Employment. IG1 and EG1 are small-lot zones.

Source: Bureau of Planning

SITE SIZE

(acres)	< 1	1-2	3-9	10-19	20-49	50+
Sites	111	100	90	37	14	1
% of District	31%	28%	25%	10%	4%	0%
Acres	56	177	480	512	411	90
% of District	3%	10%	28%	30%	24%	5%

Average Site Size = 4.89

Source: Bureau of Planning

PROPERTY VALUES

	District ($ million)	Average per sq. ft.*
Land	$279.3	$4.56
Improvements	$622.1	$10.15
Total	$901.4	$14.71

High Land Value Sites (exceeding $6/sq. ft.)

Sites	62
Acres	177.5
% of District	10%

Average Improvements/ Land Value Ratio = 2.23

* Square footage does not include open space.

Source: Multnomah County Assessment & Taxation, March - July 2004

ENVIRONMENTAL CONSTRAINTS

	Acres	% of District
Open Space*	319	19%
Constrained Land (Composite)	576	33%
100 Year Floodplain	184	11%
Other 1996 Inundation Area	50	3%
Title 3 Wetlands	122	7%
10% or Greater Slope	154	9%
Goal 5 Significant Habitat	520	30%
Open Space or Constrained	596	35%

Potential Cleanup Sites

17 sites with cleanup or investigation projects;

12 cleaned or investigated sites with "no further action required".

* OS, p, n zones; mitigation sites; public drainage; 10-year floodplain

Source: Oregon DEQ - cleanup sites

PROXIMITY TO TRANSPORTATION INFRASTRUCTURE

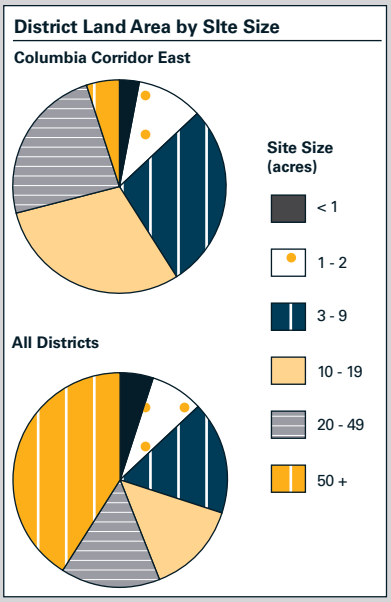
TRUCK & TRANSIT ACCESS

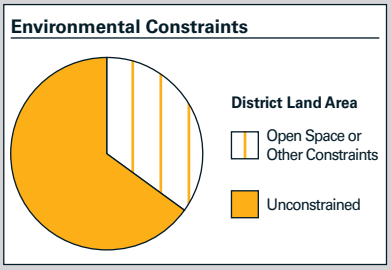
Miles from Site	Major Truck Street Acres	Major Truck Street % of District	Freeway Ramp Acres	Freeway Ramp % of District	Miles from Site	Bus Stop Acres	Bus Stop % of District
< 1	976	57%	1,132	66%	< 1/4	1,446	84%
< 2	1,726	100%	1,726	100%	< 1/2	1,726	100%

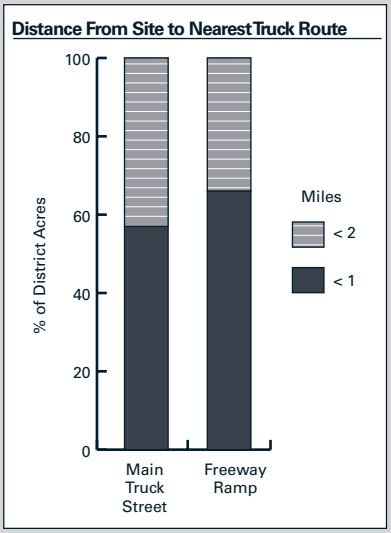
MULTIMODAL FREIGHT ACCESS

	Airport Acres	Airport % of District	Railroad Acres	Railroad % of District	Harbor Acres	Harbor % of District
Adjacent	0	0%	324	19%	0	0%
< 5	1,360	79%				

Source: Bureau of Planning







Growth Capacity

Vacant land on NE Mason Street.

A 70-acre vacant site on NE Cameron Blvd.

Flex space development.

Recent construction near a Columbia Slough side channel.Vacant land on NE Mason Street.

VACANT LAND (UNIMPROVED ACRES) 2002

	All Vacant Land	Buildable, Private Land*			Partly Buildable Tier F**	Public & Utility Sites	Land for Sale
		Total	Unconstrained Tier A	Buildable Tier B - E			
All Vacant Sites	730	252	94.5	157.7	197.1	34.4	55.0
Potential Cleanup Sites	40	29	14.2	15.2	6.8	0.0	

* Buildable private land includes all vacant land minus identified open space, Tier F, and public and utility sites with exceptions. Tiers B-E identify sites that may be affected by availability or use constraints.

** Tier F land is affected by either 100-year floodplain, 1996 inundation area, Title 3 wetland, slope exceeding 10 percent, or Metro Goal 5 habitat inventory. Identified open space is not included.

Sources: Metro - vacant; Bureau of Planning - Tiers A-F; CoStar - land for sale

OTHER POTENTIALLY UNDERUTILIZED PROPERTY

	Cleanup/Investigation			Industrial Land in Residential Use**		Developed Space on Market, April 2004	
	Sites	Acres	% of District	Sites	Acres	Sites	Area
All Land in Sites	17	133	8%	44	32	For Sale	
Developed/Occupied Portion	3	92	5%			8	243,657 sf
Underutilized Portion*						For Lease	
(Potential Brownfields)	14	42	2%			61	1,251,343 sf
Unoccupied Sites	5	25	1%				
Vacant Land on Occupied Sites	9	17	1%				

* Unoccupied sites (no tenant) and vacant (unimproved) parts of sites are underutilized. Cleanup liability may complicate redevelopment on some parts of these sites.

** Non-conforming residential use on site zoned or designated in *Comprehensive Plan* as industrial or general employment.

Sources: CoStar - space for sale or lease; Oregon DEQ - cleanup sites; Multnomah County Assessment & Taxation - market property value.

ACCESS TO FINANCIAL TOOLS

	Sites	% of District	Acres	% of District
Urban Renewal Area	236	67%	1494	87%
Enterprise Zone	0	0%	0	0%
New Market Tax Credits	269	16%	0	0%

Source: Portland Development Commission

CAPITAL IMPROVEMENTS PROGRAM PROJECTS

Capital projects in the current City of Portland CIP that are expected to expand the district's development capacity:

- Water main (WTR000127) – 200 feet of main over Columbia Slough at NE 138th Ave.

Columbia Corridor East District

Employment

- 100 - 249 Employees
- 250 - 499 Employees
- 500+ Employees

Site Boundary

Inventory Area Boundary

N

0 280 560 1,120 1,680 2,240 Feet

Information Sources:
- Orthophotography - Metro Regional Consortium, 10' or 20' pixel resolution (2003).
- Sites - Bureau of Planning, based on taxlot information provided by City of Portland Corporate Geographic Information System and Multnomah County Assessment and Taxation (February 2003).
- Employers - Inside Prospects (2003).

- Information sources are described further in Chapter 3.

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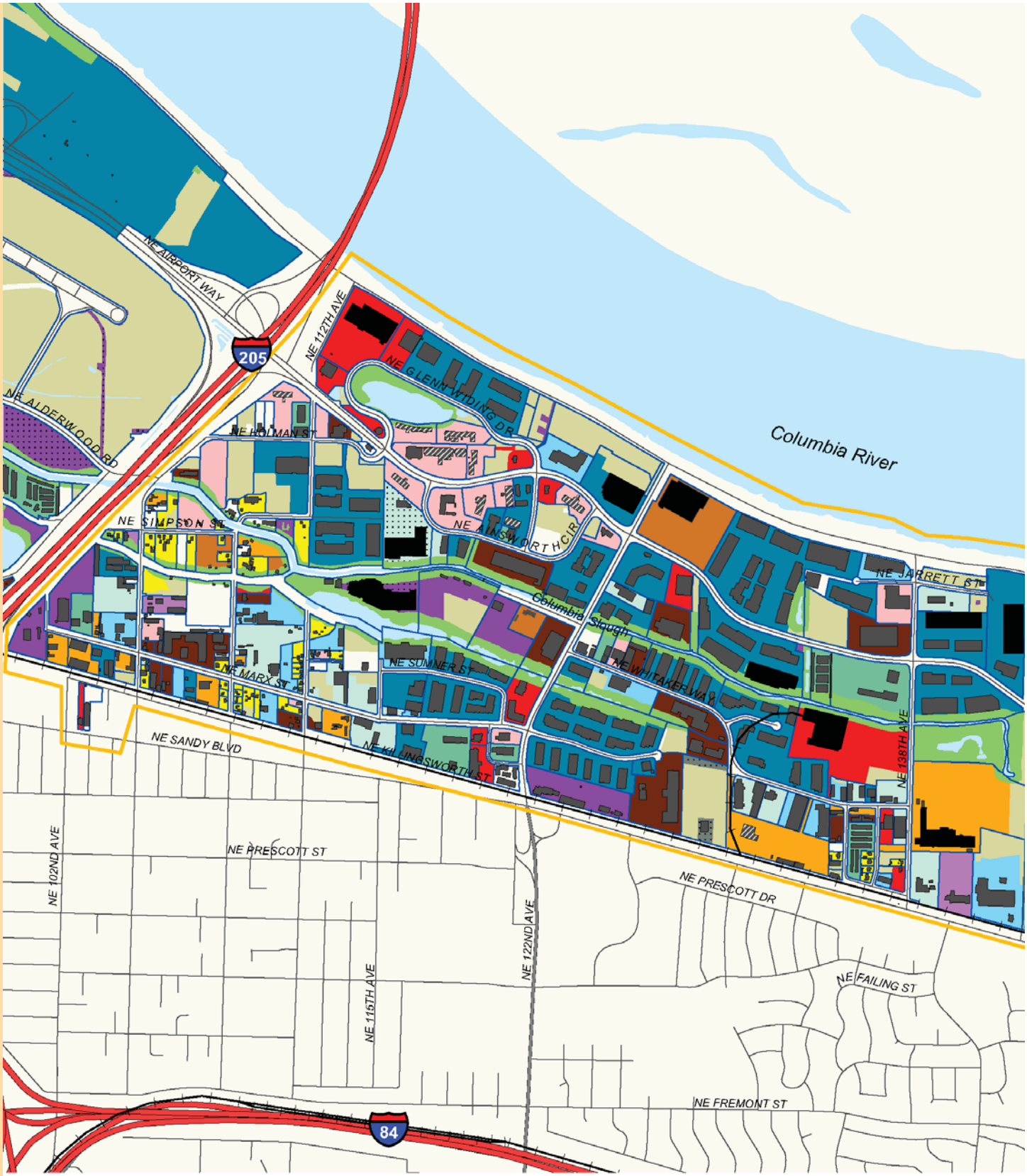

Columbia Corridor East Facilities

Heavy Industrial
- Heavy Industrial (overlay)

General Industrial
- Manufacturing
- Utilities
- Construction

Distribution
- Freight
- Transportation
- Wholesale

Multi-Tenant
- 4 + Employers
- 2-3 Employers

Industrial Services
- Public
- Rental & Maintenance

Non-Industrial
- Retail
- Services
- Residential

- Open Space
- Vacant Land
- 3 + Story (overlay)
- Structures >100,000 Sq Ft
- Other Structures
- Site Boundary
- Inventory Area Boundary

Transportation Infrastructure
- Railroads
- Freeways
- Major Truck Streets
- Streets

N

0 260 520 1,040 1,560 2,080 Feet

Information Sources:
- Facilities - Bureau of Planning, based on employment data by Inside Prospects (2003), supplemented by InfoUSA data (2003) and Bureau of Planning field inspection (2004). Utility and public facilities also include unoccupied sites in corresponding ownership. Bureau of Planning identified freight terminal and heavy industrial sites from use and scale characteristics.
- Railroads - Metro from 2000 Regional Transportation Plan.
- Truck Streets - Portland Office of Transportation from Transportation System Plan (2002).

- Information sources and methodology are described further in Chapter 3.

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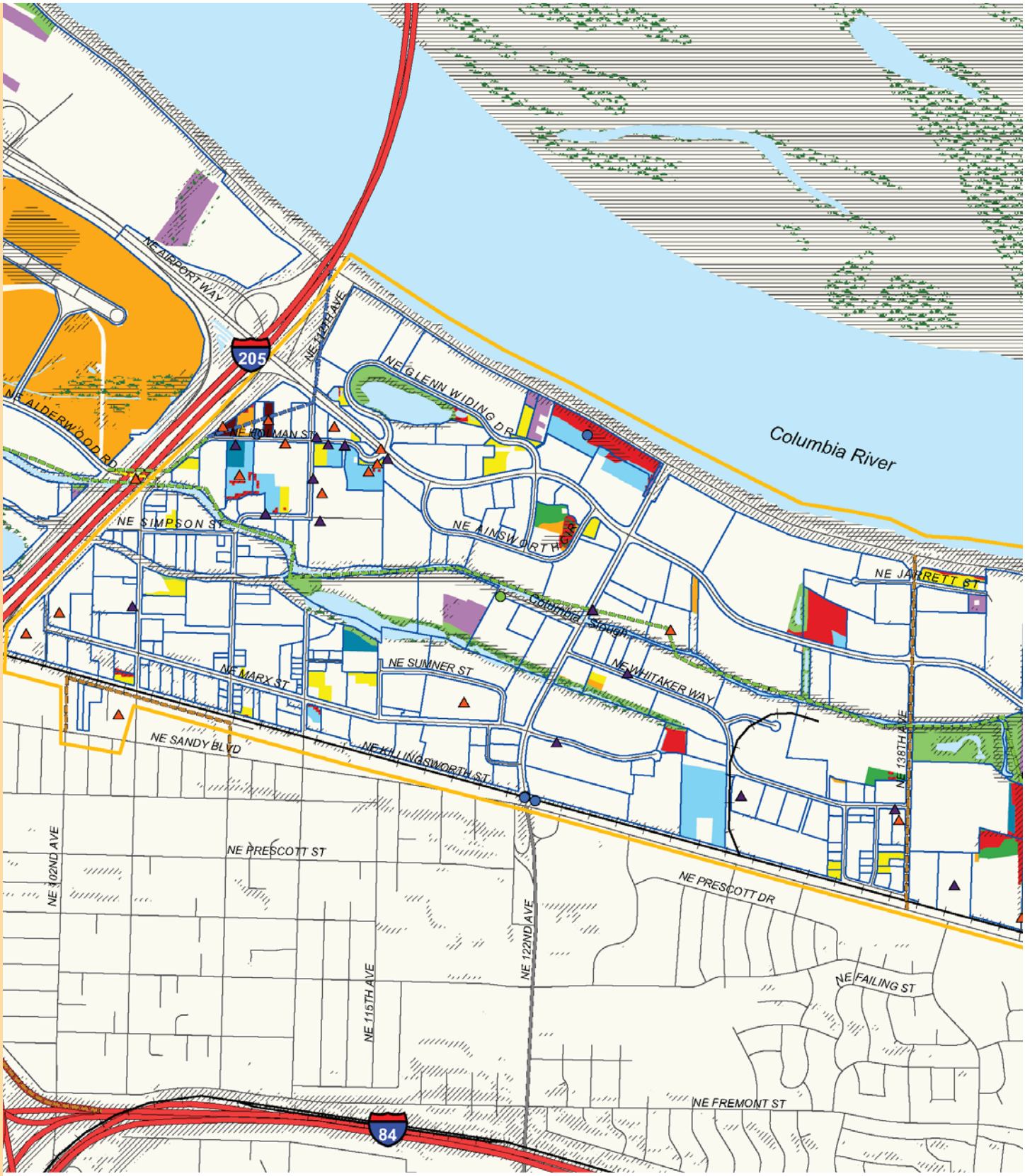


Columbia Corridor East Growth Capactiy

Tiers - Vacant Land

- A - No Constraints
- B - Land Banked
- C - Infill
- D - Underutilized
- E - Other
- F - Partly Buildable
- Vacant Open Space
- Public/Utilities
- Unoccupied DEQ Sites
- Site Boundary
- Inventory Area Boundary

Capital Improvements Program

- Bureau of Environmental Services Projects
- Portland Office of Transportation Projects
- Bureau of Water Works Projects

Transportation System Plan

- Freight Projects

Potential Cleanup Sites

- Active Investigation or Cleanup
- No Further Action Required

Environmental Constraints

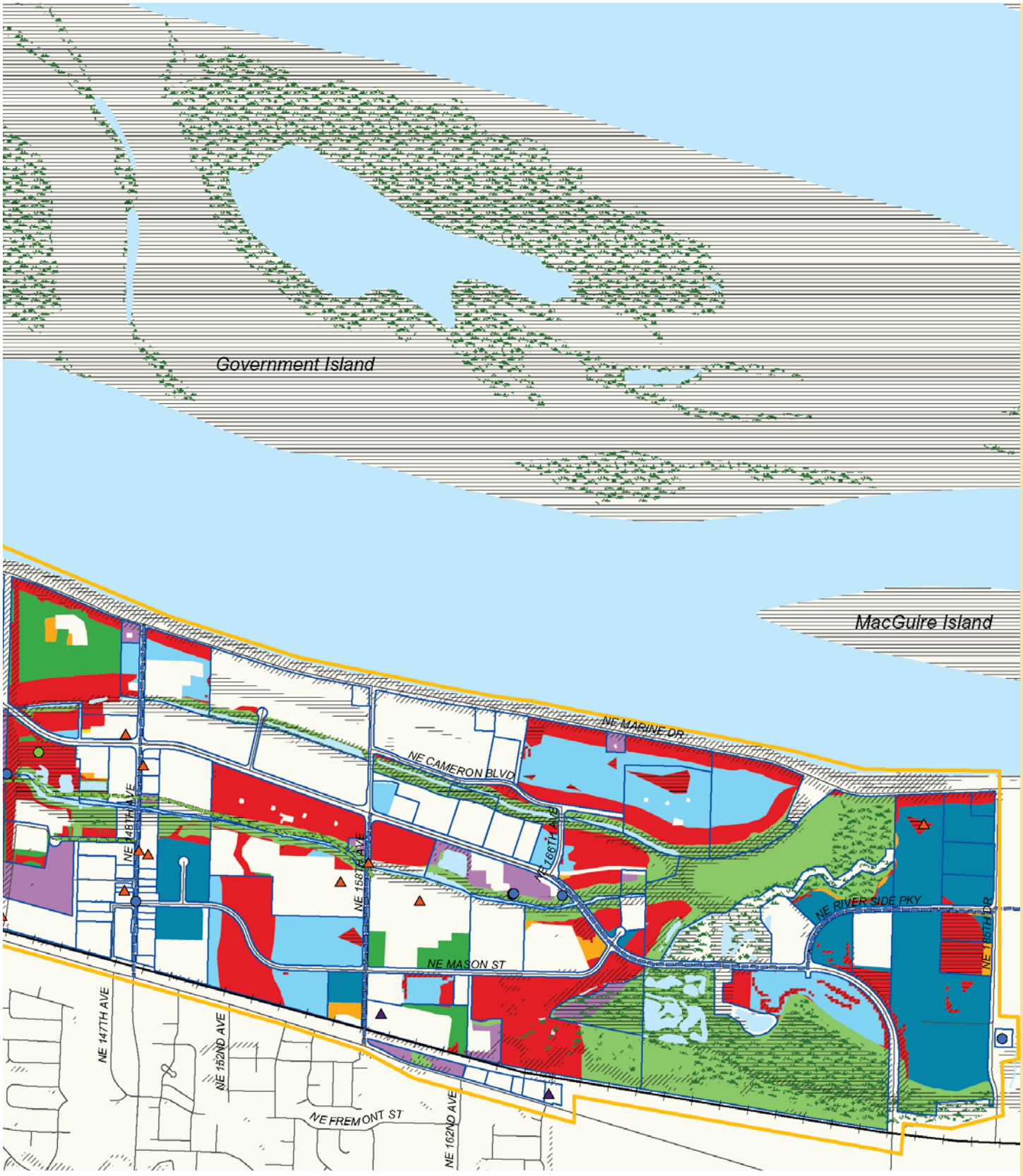
- Wetlands
- Slope > 10%
- 100 yr & 1996 Floodplains

Transportation Infrastructure

- Railroads
- Freeways
- Major Truck Streets
- Streets

N

0 275 550 1,100 1,650 2,200 Feet



Information Sources:
- Vacant land - tiers defined by Bureau of Planning from Metro (2002) vacant land data. Tier F is affected by the floodplain, slope, or wetland constraints shown or Metro Goal 5 habitat resources (2004). Open space includes OS, p, and n zones from BOP zoning (2004) and mitigation sites, 10-year floodplain, and public drainage facilities from Portland Bureau of Environmental Services (2004).
- Capital Improvements Program projects - City of Portland Corporate Geographic Information System (2004).
- Transportation System Plan projects - Portland Office of Transportation (2004).
- Potential Cleanup Sites - Oregon Department of Environmental Quality from Environmental Cleanup Site Information database (April 2004) mapped in approximate locations by Portland Bureau of Environmental Services. Data in ECSI is "working information" and some may be unconfirmed, outdated, or incomplete.
- Environmental Constraints - wetlands and 1996 flood inundation area from Metro Title 3 regulations. Modeled 100-year floodplain by Metro (2002).

- Information sources and methodology are described further in Chapter 3.

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The Inner Eastside District

Main Features

- A diverse, Central City mix of employment land uses with nearly half of its jobs in the service sectors
- A small-block, street-grid development pattern with a high employment density of 37 jobs per developed acre
- The highest share of wholesale facility space among Portland's industrial districts

A typical street in the Inner Eastside District.

The Inner Eastside is a mixed industrial/employment district characterized by its Central City location and small-block development pattern. It combines the Central Eastside and Brooklyn Yard industrial areas. Its employment density is 37 jobs per developed acre, the highest among Portland's industrial districts, which average 9 jobs per developed acre.

The Inner Eastside is a central distribution location to reach regional markets. The concentration of 123 wholesale facilities here is the highest among Portland's industrial districts, using 16 percent of the occupied developed land compared to an average 9 percent in all districts. The district is located at the intersection of the region's primary highways, I-5 and I-84, and every site is within one mile of a major truck street.

The leading employment sector is services, providing 43 percent of the district's 22,000 jobs. Its specialty industries relative to the city's other industrial districts and the region are transit (e.g., TriMet), education (e.g., Portland Community College), durable goods wholesalers, specialty construction contractors, and management of companies (e.g., Fred Meyer headquarters).

This older, urban district has a grid street network, and average site size is only 0.75 acres. Average land values in the district are $9.42 per square foot, over twice as much as the average $4.34 on all of Portland's industrial land. Nearly three out of four acres in the district has land value that exceeds $6 per square foot, which is generally the upper end of the price range for industrial land in the region. However, small-lot industrial facilities have found the district to be an attractive location option. The 82 manufacturing sites in the district have an average size of 0.8 acres, compared to a 4.8-acre average among manufacturing sites in all of the city's industrial districts. Construction and wholesale sites are similarly smaller here.

Union Pacific's 100-acre Brooklyn Rail Yard is a contrasting heavy industrial feature to the district's small-lot, urban character. The surrounding industrial area south of Division Street also has an assortment of medium-size sites in the 5-30 acre range.

The district is almost entirely built out, having only 14 acres of vacant land.

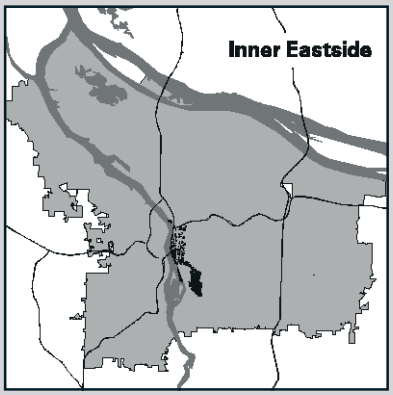
LARGEST EMPLOYERS

	INDUSTRY	JOBS
Tri-Met Transportation	Local and Suburban Transit	500+
Ptd. Community College	Colleges and Universities	500+
Fred Meyer Stores Inc.	Grocery Stores	500+
Goodwill Industries	Social Services	500+
North Pacific Trading	Commodity Contracts Brokers Dealers	500+
Oregon Electric Group	Electrical Work	250-499
Amer. Medical Response	Local Passenger Transportation	250-499
Franz Bakery	Bread and Other Bakery Products	250-499
OMSI	Museums and Art Galleries	250-499
PECO Manufacturing	Plastic Products	250-499

Source: Inside Prospects, 2003

LOCATION

The Inner Eastside District consists of the Central Eastside and Brooklyn industrial areas.



SIZE

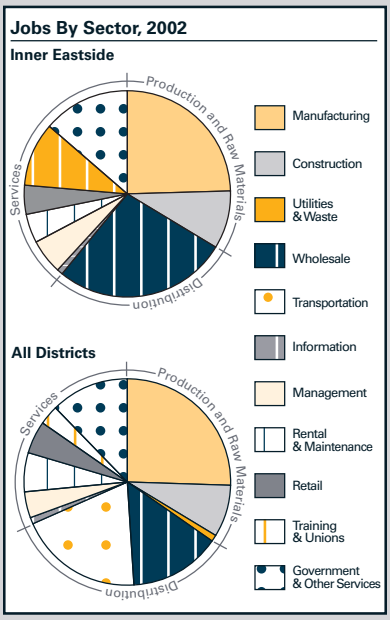
- 837 sites on 626 acres
- 4 percent of the city's industrial land
- 21,761 jobs in 864 establishments (2002)

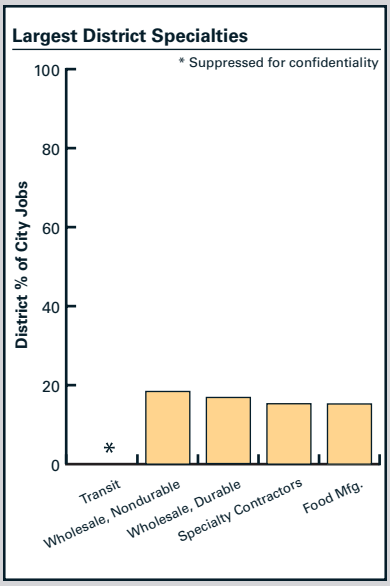
Fred Meyer headquarters.

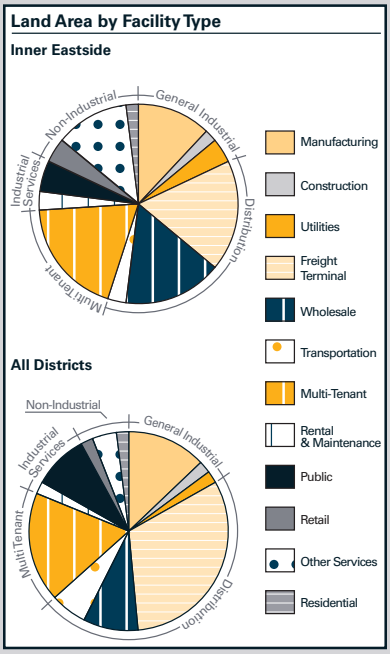
American Medical Response provides ambulance service.

Peco Inc. manufactures plastics.

Mix of Industries







ESTABLISHMENTS AND JOBS, 2002

	NAICS	Establishments	Jobs/Establishment	Jobs	% of All Jobs in Area: District	% of All Jobs in Area: All Districts
All Sectors		864	25	21,761	100%	100%
Production & Raw Materials		244	24	5,862	27%	34%
Manufacturing	311-339	152	22	3,416	16%	25%
Construction, Utilities & Waste	A, 236-238	92	27	2,446	10%	8%
Distribution	423-425, 481-493	244	26	6,433	30%	34%
Services		376	25	9,466	43%	32%
Information	B	18	16	287	1%	1%
Management	551	9	154	1,387	6%	4%
Rental & Maintenance	C	87	13	1,152	5%	6%
Government	921-928	0	0	0	0%	1%
Retail	441-454	69	15	1,045	5%	5%
Training & Unions	D	21	116	2,444	11%	3%
Other Services	E	172	18	3,151	15%	11%
Highest Employment Industries						
Transit	485	*		*		
Educational Services	611	7	335	2,346	11%	3%
Wholesale, Durable	423	117	17	1,943	9%	9%
Specialty Contractors	238	66	26	1,708	8%	6%
Mgmt. of Companies	551	9	154	1,387	6%	4%
Wholesale, Nondurable	424	58	22	1,249	6%	5%
Ambulatory Health Care	621	12	68	816	4%	1%
Admin. & Support Svcs.	561	32	25	801	4%	3%
Fabricated Metal Mfg.	332	33	17	558	3%	4%
Food Manufacturing	311	9	60	542	2%	3%

NAICS: A = 221, 517, 562; B = 511-519, exc. 517;
C = 532, 5617, 811, 8123; D = 6112-6117, 6213, 81393;
* Data suppressed for confidentiality

Source: Covered Employment, Oregon Employment Department

FACILITY TYPES

Facility Type	Sites	Total Acres	Developed Area*: Acres	Developed Area*: Average Size	% of Occupied** Developed Area: District	% of Occupied** Developed Area: All Districts
Occupied Sites**	711	572	547	0.77	100%	100%
General Industrial	132	107	99	0.75	18%	17%
Manufacturing	82	66	63	0.77	12%	13%
Construction	32	12	12	0.38	2%	2%
Utilities	18	29	24	1.35	4%	2%
Distribution	133	206	204	1.53	37%	47%
Freight Terminal	3	101	101	33.79	18%	32%
Wholesale	123	88	87	0.71	16%	9%
Transportation	7	17	16	2.33	3%	6%
Multi-Tenant	169	104	103	0.61	19%	18%
4+ Tenants	36	29	29	0.81	5%	12%
Industrial Services	87	58	43	0.49	8%	11%
Rental & Mtnc.	44	18	18	0.41	3%	2%
Public	43	40	25	0.59	5%	9%
Non-Industrial	190	98	96	0.51	18%	8%
Retail	49	24	22	0.45	4%	2%
Other Services	55	64	64	1.16	12%	4%
Residential	86	10	10	0.11	2%	2%
Unoccupied Sites	126	54	48	0.38		
Heavy Industrial	4	108	108	27.00	20%	48%

* Developed area does not include vacant (unimproved) land or open space.
** Occupied sites are those with a current tenant.

Source: Bureau of Planning

Site Conditions

ZONING

	Industrial			Employment		
	IH	IG1	IG2	EG1	EG2	Other
Acres	18	525	0	31	39	13
% of All Acres	3%	84%	0%	5%	6%	2%

* IH = Heavy Industrial. IG = General Industrial. IG1 and EG1 are small-lot zones

Source: Bureau of Planning

SITE SIZE

(acres)	< 1	1-2	3-9	10-19	20-49	50+	
Sites	742	74	15	3	2	1	Average
% of District	89%	9%	2%	0%	0%	0%	Site Size
Acres	260	123.7	83	32	74	54	= .75
% of District	42%	20%	13%	5%	12%	9%	

Source: Bureau of Planning

PROPERTY VALUES

	District $ million	Average per sq. ft.*
Land	$256.8	$9.68
Improvements	$611.0	$23.02
Total	$867.8	$32.70

High Land Value Sites (exceeding $6/sq. ft.)

Sites	785
Acres	454.0
% of District	73%

Average Improvements/ Land Value Ratio = 2.38

* Square footage does not include open space.

Source: Multnomah County Assessment & Taxation, March - July 2004

ENVIRONMENTAL CONSTRAINTS

	Acres	% of District
Open Space*	17	3%
Constrained Land (Composite)	67	11%
100 Year Floodplain	14	2%
Other 1996 Inundation Area	10	2%
Title 3 Wetlands	0	0%
10% or Greater Slope	48	8%
Goal 5 Significant Habitat	37	6%
Open Space or Constrained	69	11%

Potential Cleanup Sites

26 sites with cleanup or investigation projects;

4 cleaned or investigated sites with "no further action required".

* OS, p, n zones; mitigation sites; public drainage; 10-year floodplain

Source: Oregon DEQ - cleanup sites

PROXIMITY TO TRANSPORTATION INFRASTRUCTURE

TRUCK & TRANSIT ACCESS

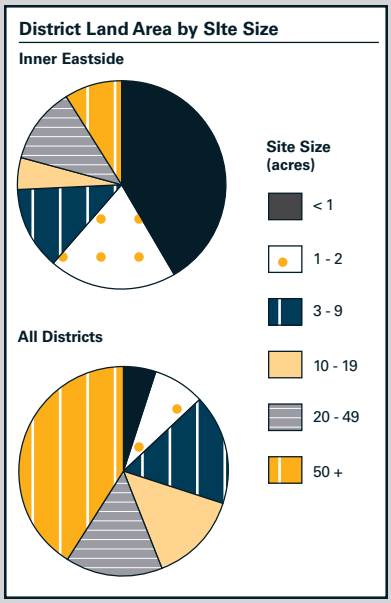
Miles from Site	Major Truck Street Acres	Major Truck Street % of District	Freeway Ramp Acres	Freeway Ramp % of District
< 1	626	100%	335	54%
< 2				

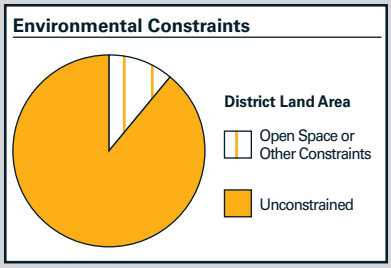
Miles from Site	Bus Stop Acres	Bus Stop % of District
< 1/4	601	96%
< 1/2	626	100%

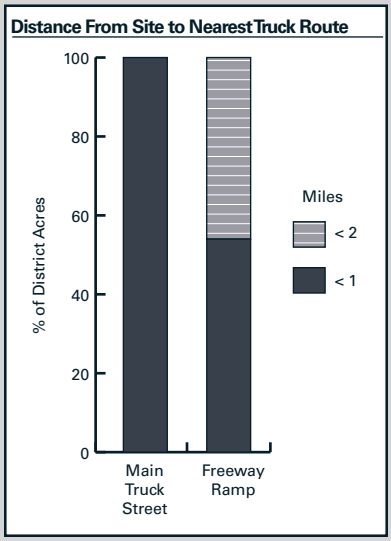
MULTIMODAL FREIGHT ACCESS

	Airport Acres	Airport % of District	Railroad Acres	Railroad % of District	Harbor Acres	Harbor % of District
Adjacent	0	0%	295	47%	5.6	1%
< 5	0	0%				

Source: Bureau of Planning







Growth Capacity

Vacant land near I-5 owned by Oregon Department of Transportation.

A vacant 6-acre utility site.

Building space available.

VACANT LAND (UNIMPROVED ACRES) 2002

	All Vacant Land	Buildable, Private Land*			Partly Buildable Tier F**	Public & Utility Sites	Land for Sale
		Total	Unconstrained Tier A	Buildable Tier B - E			
All Vacant Sites	14	2	0.0	1.8	4.8	6.4	0.1
Potential Cleanup Sites	2	0	0.0	0.0	0.0	2.4	

* Buildable private land includes all vacant land minus identified open space, Tier F, and public and utility sites with exceptions. Tiers B-E identify sites that may be affected by availability or use constraints.

** Tier F land is affected by either 100-year floodplain, 1996 inundation area, Title 3 wetland, slope exceeding 10 percent, or Metro Goal 5 habitat inventory. Identified open space is not included.

Sources: Metro - vacant; Bureau of Planning - Tiers A-F; CoStar - land for sale

OTHER POTENTIALLY UNDERUTILIZED PROPERTY

	Cleanup/Investigation			Industrial Land in Residential Use**		Developed Space on Market, April 2004	
	Sites	Acres	% of District	Sites	Acres	Sites	Area
All Land in Sites	26	130	21%	86	10	For Sale	
Developed/Occupied Portion	22	127	20%			13	296,665 sf
Underutilized Portion*						For Lease	
(Potential Brownfields)	4	3	1%			70	945,346 sf
Unoccupied Sites	3	0.9	0%				
Vacant Land on Occupied Sites	1	2	0%				

* Unnoccupied sites (no tenant) and vacant (unimproved) parts of sites are underutilized. Cleanup liability may complicate redevelopment on some parts of these sites.

** Non-conforming residential use on site zoned or designated in *Comprehensive Plan* as industrial or general employment.

Sources: CoStar - space for sale or lease; Oregon DEQ - cleanup sites; Multnomah County Assessment & Taxation - market property value.

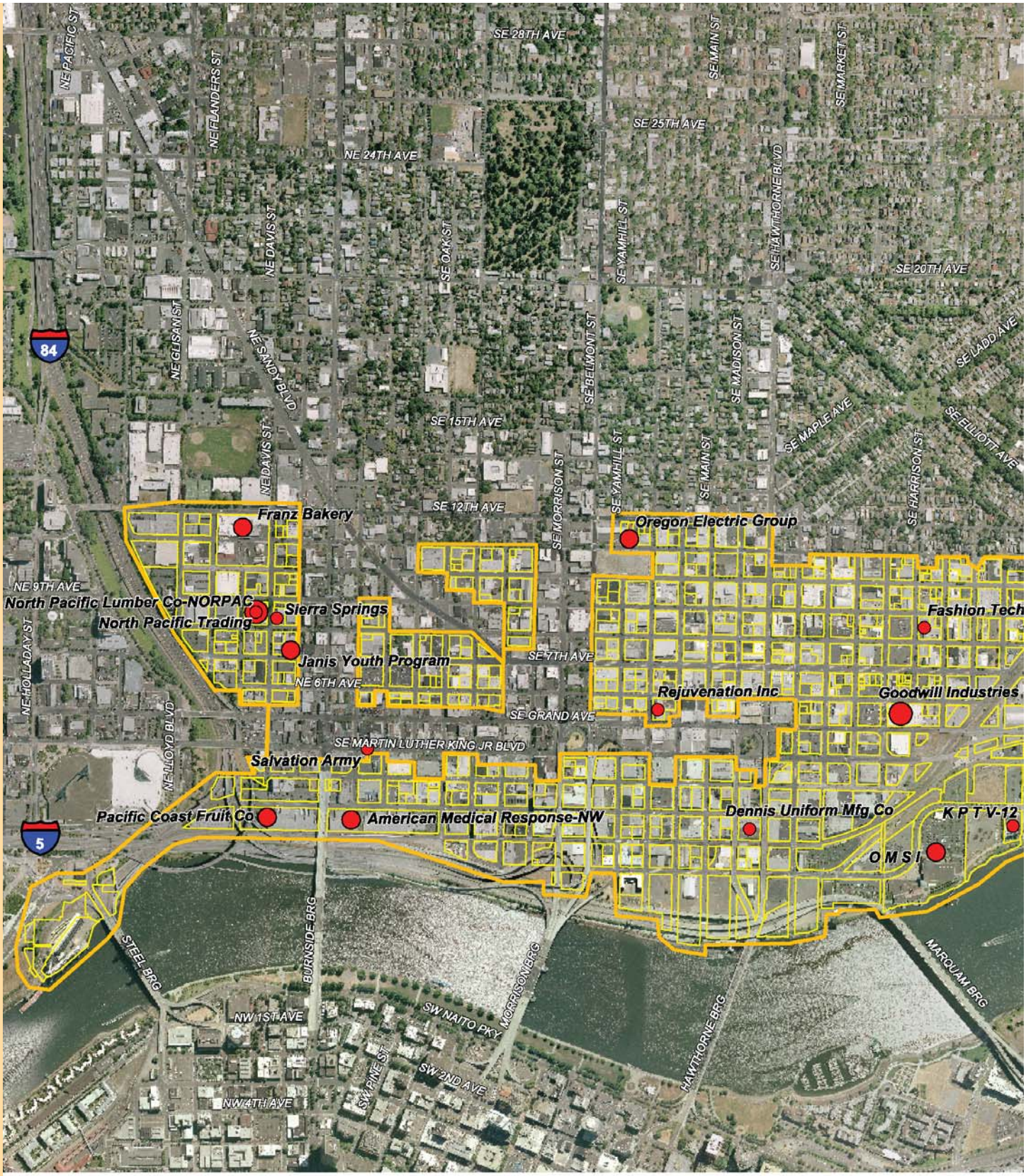
ACCESS TO FINANCIAL TOOLS

	Sites	% of District	Acres	% of District
Urban Renewal Area	575	69%	307	49%
Enterprise Zone	0	0%	0	0%
New Market Tax Credits	537	64%	364	6%

Source: Portland Development Commission

CAPITAL IMPROVEMENTS PROGRAM PROJECTS

No capital projects in the current City of Portland CIP were identified that would expand the district's development capacity.



Inner Eastside District

Employment

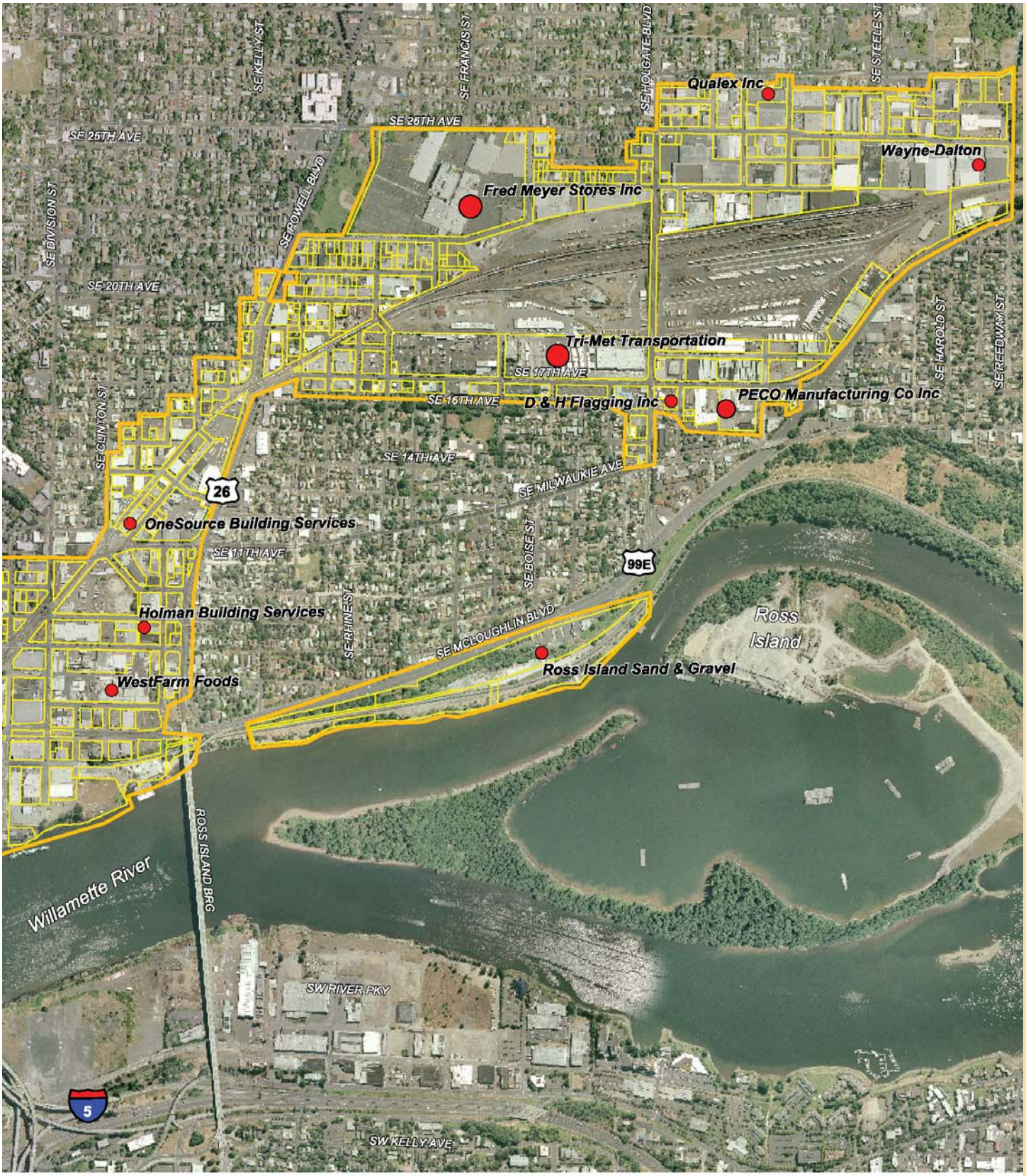
- 100 - 249 Employees
- 250 - 499 Employees
- 500+ Employees

Site Boundary

Inventory Area Boundary

N

0 237.5 475 950 1,425 1,900 Feet



INNER EASTSIDE DISTRICT

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- Employers - Inside Prospects (2003).

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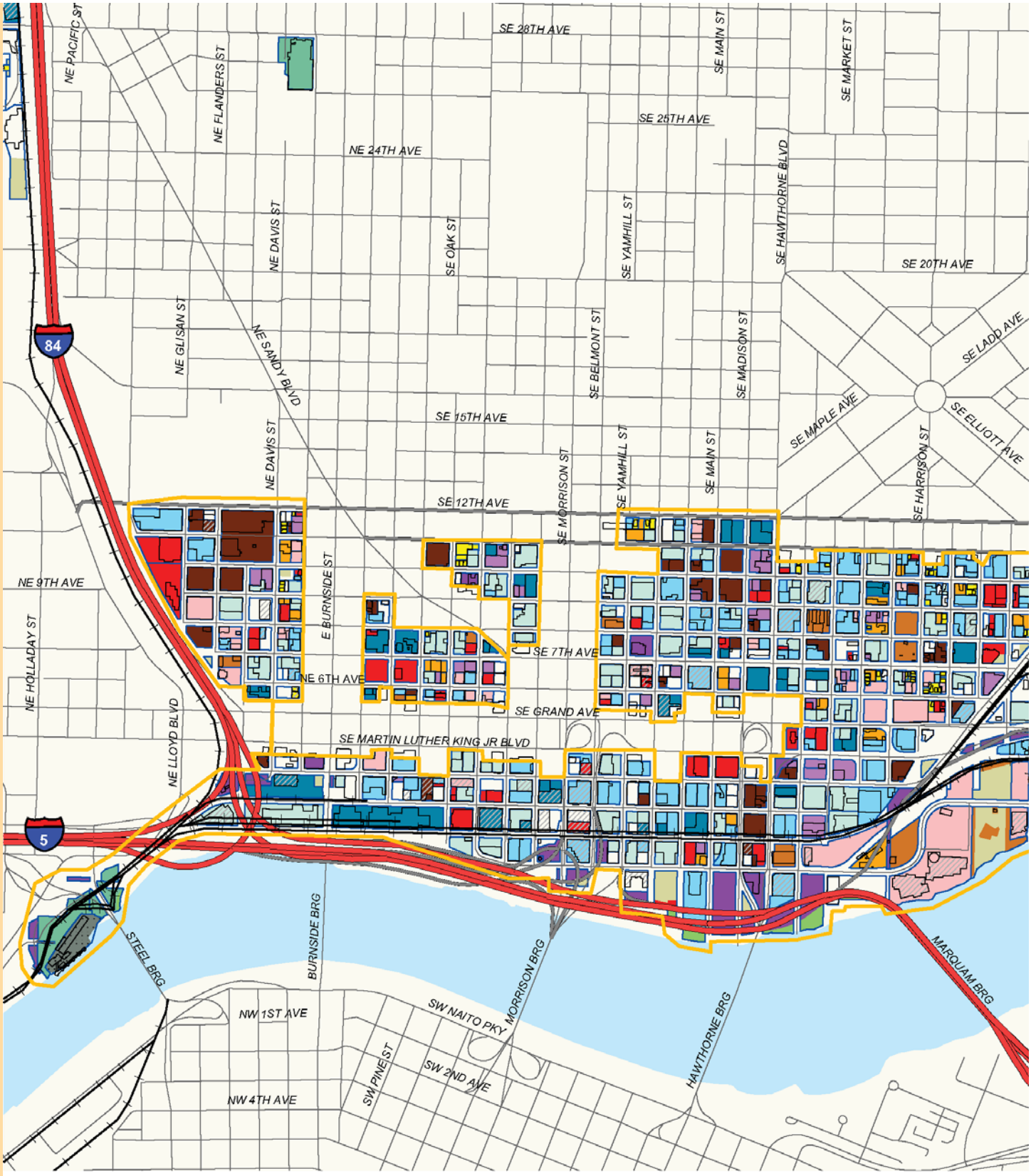


Inner Eastside Facilities

Heavy Industrial
- Heavy Industrial (overlay)

General Industrial
- Manufacturing
- Utilities
- Construction

Distribution
- Freight
- Transportation
- Wholesale

Multi-Tenant
- 4 + Employers
- 2-3 Employers

Industrial Services
- Public
- Rental & Maintenance

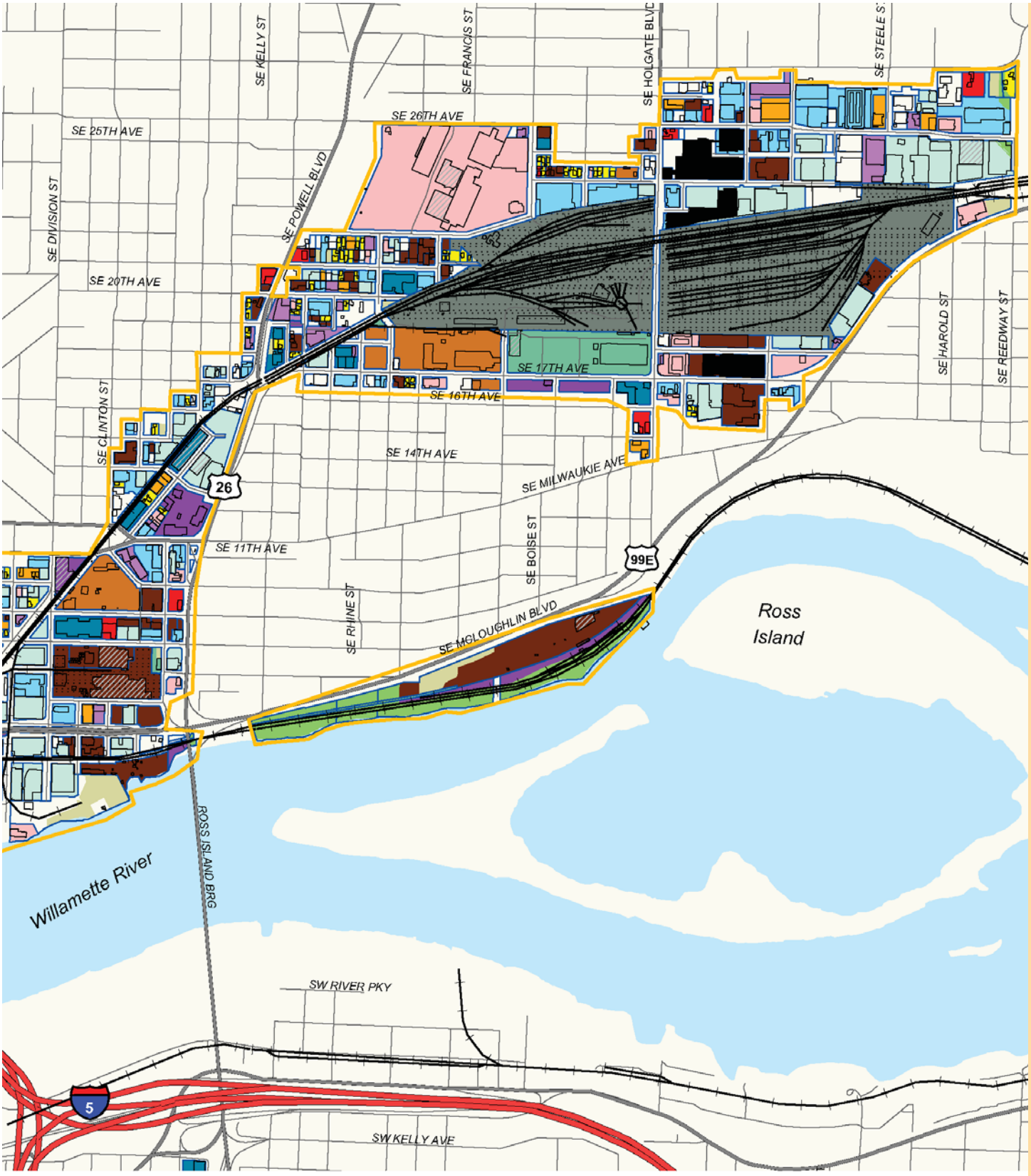
Non-Industrial
- Retail
- Services
- Residential

- Open Space
- Vacant Land
- 3 + Story (overlay)
- Structures >100,000 Sq Ft
- Other Structures
- Site Boundary
- Inventory Area Boundary

Transportation Infrastructure
- Railroads
- Freeways
- Major Truck Streets
- Streets

N

0 220 440 880 1,320 1,760 Feet



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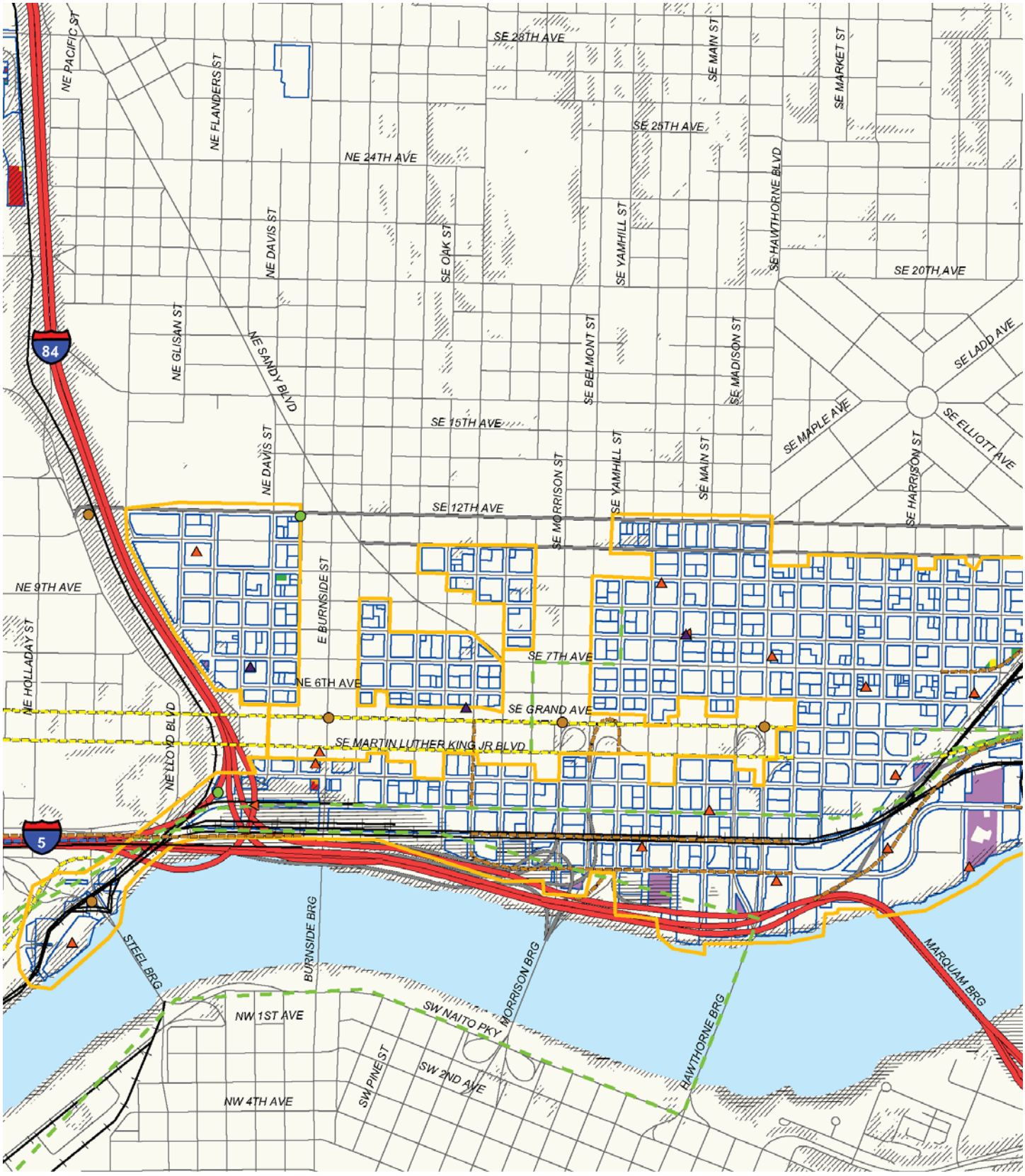
INNER EASTSIDE DISTRICT



Inner Eastside Growth Capactiy

Tiers - Vacant Land

- A - No Constraints
- B - Land Banked
- C - Infill
- D - Underutilized
- E - Other
- F - Partly Buildable
- Vacant Open Space
- Public/Utilities
- Unoccupied DEQ Sites
- Site Boundary
- Inventory Area Boundary

Capital Improvements Program

- Bureau of Environmental Services Projects
- Portland Office of Transportation Projects
- Bureau of Water Works Projects

Transportation System Plan

- Freight Projects

Potential Cleanup Sites

- Active Investigation or Cleanup
- No Further Action Required

Environmental Constraints

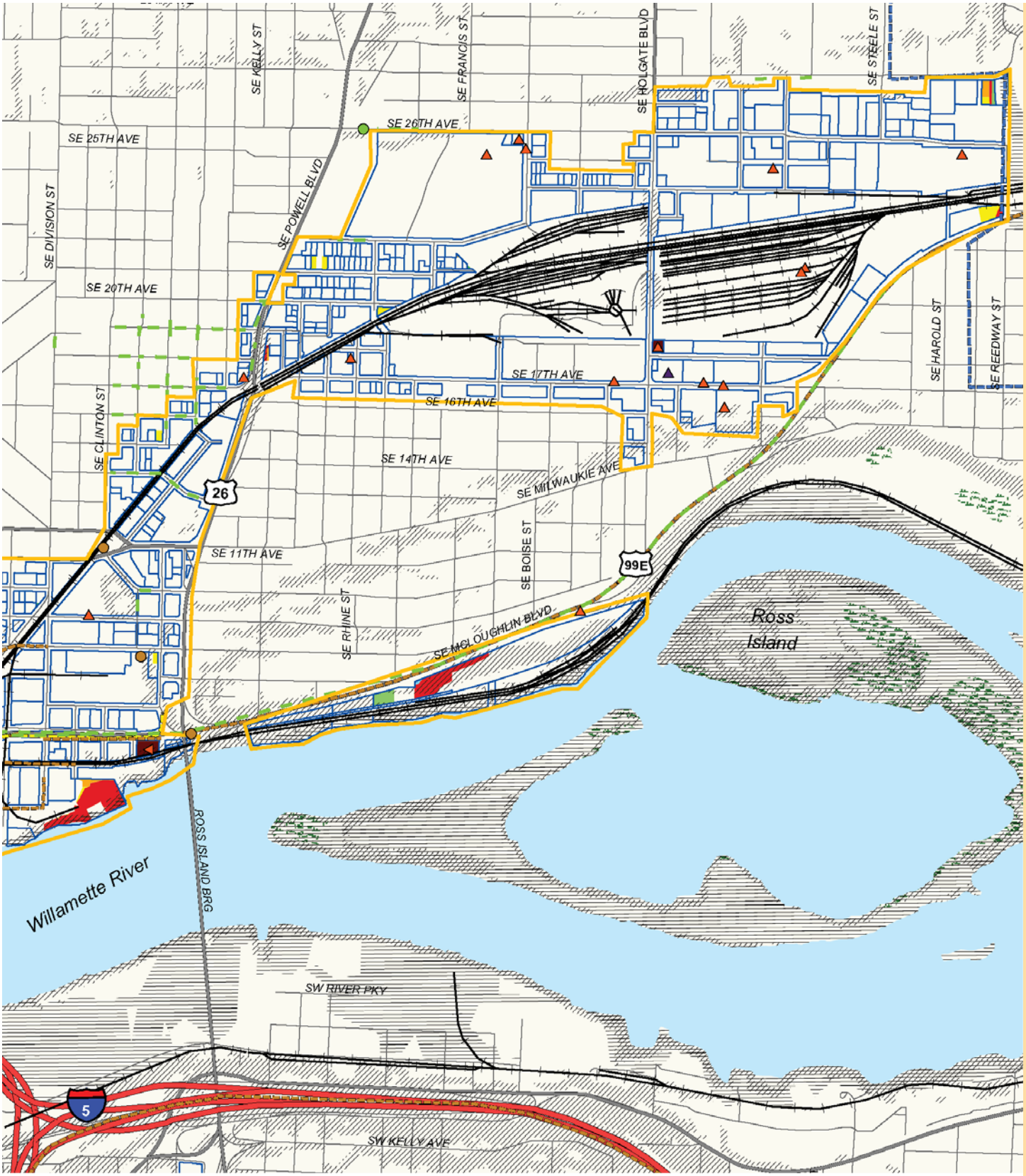
- Wetlands
- Slope > 10%
- 100 yr & 1996 Floodplains

Transportation Infrastructure

- Railroads
- Freeways
- Major Truck Streets
- Streets

N

0 230 460 920 1,380 1,840 Feet



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- Transportation System Plan projects - Portland Office of Transportation (2004).
- Potential Cleanup Sites - Oregon Department of Environmental Quality from Environmental Cleanup Site Information database (April 2004) mapped in approximate locations by Portland Bureau of Environmental Services. Data in ECSI is "working information" and some may be unconfirmed, outdated, or incomplete.
- Environmental Constraints - wetlands and 1996 flood inundation area from Metro Title 3 regulations. Modeled 100-year floodplain by Metro (2002).

- Information sources and methodology are described further in Chapter 3.

Investing in Portland's Future

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BUREAU OF Planning

The Banfield District

Oregon Catholic Press.

Main Features

- A small, 117-acre group of employment areas along the Banfield Freeway
- A dominant pattern of "flex space" development reflecting a high, 58 percent share of multi-tenant facilities
- An advantageous land use pattern for adjacent neighborhoods as a freeway buffer, job source, and light scale of development

The 117-acre Banfield District is a collection of small, dispersed areas along the Banfield (I-84) Freeway. While the other districts have primarily industrial zoning, 70 percent of the acreage in Banfield has general employment zoning. Multi-tenant, flex space facilities make up 58 percent of the occupied, developed land, compared to 18 percent in all of the city's industrial districts.

The district has a "business park" mix of commercial and industrial uses. The service sectors provide 59 percent of the employment, compared to an average 32 percent among all of Portland's industrial districts. Specialty industries here relative to other districts are administrative and support services (e.g. janitorial), wholesale trade, publishing, and non-store retailers (e.g., fuel sales).

Banfield's small size, mix of employment uses, and fine grain—average site size is 1.6 acres—limit the potential for adverse industrial impacts on residential neighbors. No heavy industrial facilities are located here. The district also provides surrounding neighborhoods with a source of jobs and a buffer from freeway noise. In turn, the area's freeway, light rail (adjacent to the freeway), and bus access are advantageous for industrial use. Every site in the district is within a ten-minute walk (quarter mile) of a bus stop, and 97 percent of the district is on sites within a mile of a freeway ramp.

Although most of the district is built out, it also includes a 28-acre unimproved site on 82nd Avenue.

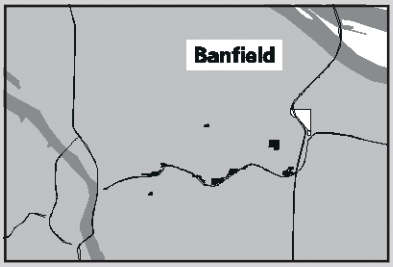
LARGEST EMPLOYERS

	INDUSTRY	JOBS
ABM Janitorial Services	Building Maintenance Services	500+
Oregon Catholic Press	Newspapers	100-249
Albina Fuel Co.	Fuel Oil Dealers	100-249
Academic Book Centers	Books Periodicals and Newspapers	50-99
The Empire Company	Womens and Childrens Clothing	50-99
Graybar Electric Co.	Electrical Apparatus And Equipment	50-99
C T I Group	Platemaking and Related Services	50-99
Good Catalog Company	Mail Order Houses	50-99

Source: Inside Prospects, 2003

LOCATION

The Banfield District is the group of small industrial areas along the I-84 freeway west of the I-205 freeway.



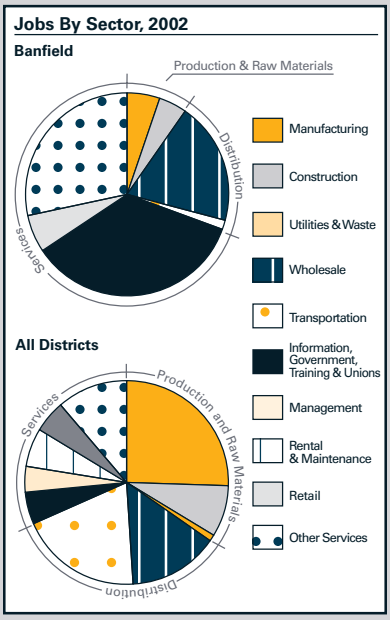
SIZE

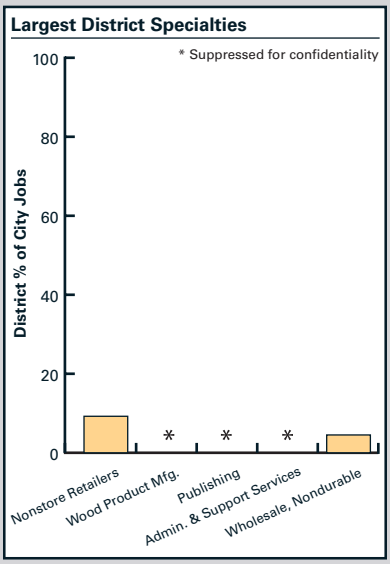
- 73 sites on 117 acres
- 1 percent of the city's industrial land
- 1,592 jobs in 74 establishments (2002)

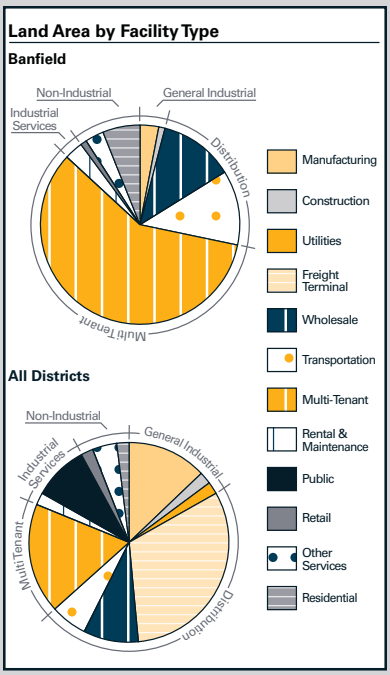
ABM Janitorial is the district's largest employer.

Graybar Electric is an electrical equipment wholesaler.

Mix of Industries







ESTABLISHMENTS AND JOBS, 2002

	NAICS	Estab-lishments	Jobs/Estab-lishment	Jobs	% of All Jobs in Area: District	% of All Jobs in Area: All Districts
All Sectors		74	22	1,592	100%	100%
Production & Raw Materials		18	11	199	13%	34%
Manufacturing	311-339	10	11	111	7%	25%
Construction	236-238	8	11	88	6%	8%
Utilities & Waste Mgmt.	A	0	0	0	0%	1%
Distribution		30	15	446	28%	34%
Wholesale	423-425	27	15	415	26%	14%
Transportation	481-493	3	10	31	2%	19%
Services		26	36	947	59%	32%
Information	B	*		*		
Management	551	0	0	0	0%	4%
Rental & Maintenance	C	*		*		
Government	921-928	0	0	0	0%	1%
Retail	441-454	6	21	126	8%	5%
Training & Unions	D	*		*		
Other Services	E	7	10	67	38%	11%
Highest Employment Industries						
Air Transportation	561	*		*		
Wholesale, Durable	423	18	12	218	14%	9%
Transportation Support	424	5	38	189	12%	5%
Truck Transportation	511	*		*		
Fabricated Metal Mfg.	454	3	31	94	6%	0%
Specialty Contractors	238	6	9	55	3%	6%
Food & Drinking Places	321	*		*		
Food Manufacturing	236	*		*		

NAICS: A = 221, 517, 562; B = 511-519, exc. 517;
C = 532, 5617, 811, 8123; D = 6112-6117, 6213, 81393;
* Data suppressed for confidentiality.

Source: Covered Employment, Oregon Employment Department

FACILITY TYPES

Facility Type	Sites	Total Acres	Developed Area: Acres	Developed Area: Average Size	% of Occupied** Developed Area: District	% of Occupied** Developed Area: All Districts
Occupied Sites**	57	79	77	1.35	100%	100%
General Industrial	8	3	3	0.38	4%	17%
Manufacturing	4	2	2	0.49	3%	13%
Utilities	4	1	1	0.25	1%	2%
Construction	0	0	0	0.00	0%	2%
Distribution	9	19	18	2.00	23%	47%
Freight Terminal	0	0	0	0.00	0%	32%
Wholesale	5	10	9	1.87	12%	9%
Transportation	4	9	9	2.22	12%	6%
Multi-Tenant	13	46	45	3.46	58%	18%
4+ Tenants	6	34	34	5.64	44%	12%
Industrial Services	4	2	2	0.50	3%	11%
Public	0	0	0	0.00	0%	9%
Rental & Mtnc.	4	2	2	0.49	3%	2%
Non-Industrial	23	8	8	0.35	10%	8%
Retail	3	1	1	0.43	1%	2%
Other Services	5	2	2	0.34	3%	4%
Residential	15	5	5	0.37	6%	2%
Unoccupied Sites	16	38	11	0.69		
Heavy Industrial	0	0	0	0.00	0%	48%

* Developed area does not include vacant (unimproved) land or open space.
** Occupied sites are those with a current tenant.

Source: Bureau of Planning

Site Conditions

ZONING

	Industrial			Employment		
	IH	IG1	IG2	EG1	EG2	Other
Acres	7	4	22	6	76	2
% of All Acres	6%	3%	19%	5%	65%	2%

* IH = Heavy Industrial. IG = General Industrial. EG = General Employment. IG1 and EG1 are small-lot zones.

Source: Bureau of Planning

SITE SIZE

(acres)	< 1	1-2	3-9	10-19	20-49	50+	
Sites	49	13	9	1	1	0	Average Site Size = 1.60
% of District	67%	18%	12%	1%	1%	0%	
Acres	15	26	36	12	27	0	
% of District	13%	22%	31%	10%	23%	0%	

Source: Bureau of Planning

PROPERTY VALUES

	District ($ million)	Average per sq. ft.*
Land	$27.1	$5.32
Improvements	$61.7	$12.11
Total	$88.8	$17.43

High Land Value Sites (exceeding $6/sq. ft.)	
Sites	51
Acres	27.0
% of District	23%

Average Improvements/ Land Value Ratio = 2.28

* Square footage does not include open space.

Source: Multnomah County Assessment & Taxation, March - July 2004

ENVIRONMENTAL CONSTRAINTS

	Acres	% of District
Open Space*	0	0%
Constrained Land (Composite)	19	16%
100 Year Floodplain	0	0%
Other 1996 Inundation Area	0	0%
Title 3 Wetlands	0	0%
10% or Greater Slope	19	16%
Goal 5 Significant Habitat	0	0%
Open Space or Constrained	19	16%

Potential Cleanup Sites

1 site with cleanup or investigation projects;

2 cleaned or investigated sites with "no further action required".

* OS, p, n zones; mitigation sites; public drainage; 10-year floodplain

Source: Oregon DEQ - cleanup sites

PROXIMITY TO TRANSPORTATION INFRASTRUCTURE

TRUCK & TRANSIT ACCESS

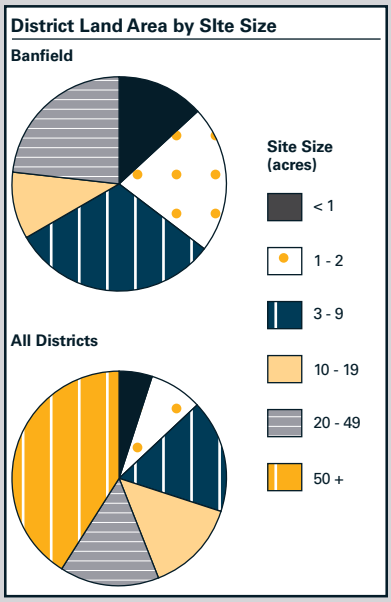
Miles from Site	Major Truck Street Acres	Major Truck Street % of District	Freeway Ramp Acres	Freeway Ramp % of District
< 1	114	97%	114	97%
< 2	117	100%	117	100%

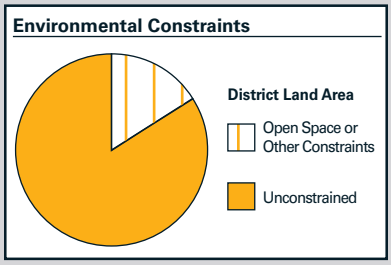
Miles from Site	Bus Stop Acres	Bus Stop % of District
< 1/4	117	100%

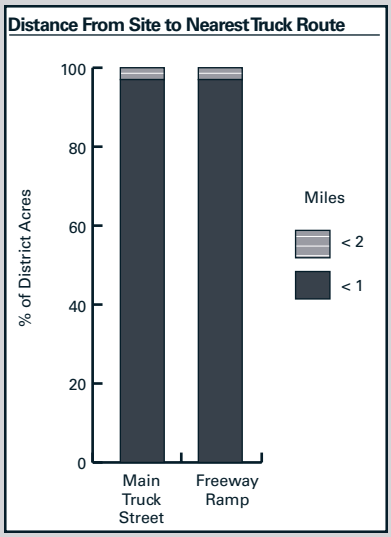
MULTIMODAL FREIGHT ACCESS

	Airport Acres	Airport % of District	Railroad Acres	Railroad % of District	Harbor Acres	Harbor % of District
Adjacent	0	0%	28.7	25%	0	0%
< 5	117	100%				

Source: Bureau of Planning







BANFIELD DISTRICT

Growth Capacity

Building space available.

A 28-acre vacant site on NE 82nd Avenue.

Freight rail, MAX light rail, and the I-84 freeway serve the Banfield District.

VACANT LAND (UNIMPROVED ACRES) 2002

	All Vacant Land	Buildable, Private Land*			Partly Buildable Tier F**	Public & Utility Sites	Land for Sale
		Total	Unconstrained Tier A	Buildable Tier B - E			
All Vacant Sites	29	21.0	0.0	21.0	7.4	0.0	0.0
Potential Cleanup Sites	0	0.0	0.0	0.0	0.0	0.0	

Sources: Metro - vacant; Bureau of Planning - Tiers A-F; CoStar - land for sale

OTHER POTENTIALLY UNDERUTILIZED PROPERTY

	Cleanup/Investigation			Industrial Land in Residential Use**		Developed Space on Market, April 2004	
	Sites	Acres	% of District	Sites	Acres	Sites	Area
All Land in Sites	1	0.2	0%	15	5	For Sale	
Developed/Occupied Portion	0	0.0	0%			2	77,775 sf
Underutilized Portion*						For Lease	
(Potential Brownfields)	1	0.2	0%			6	134,743 sf
Unoccupied Sites	1	0.2	0%				
Vacant Land on Occupied Sites	0	0	0%				

* Unoccupied sites (no tenant) and vacant (unimproved) parts of sites are underutilized. Cleanup liability may complicate redevelopment on some parts of these sites.

** Non-conforming residential use on site zoned or designated in *Comprehensive Plan* as industrial or general employment.

Sources: CoStar - space for sale or lease; Oregon DEQ - cleanup sites; Multnomah County Assessment & Taxation - market property value.

ACCESS TO FINANCIAL TOOLS

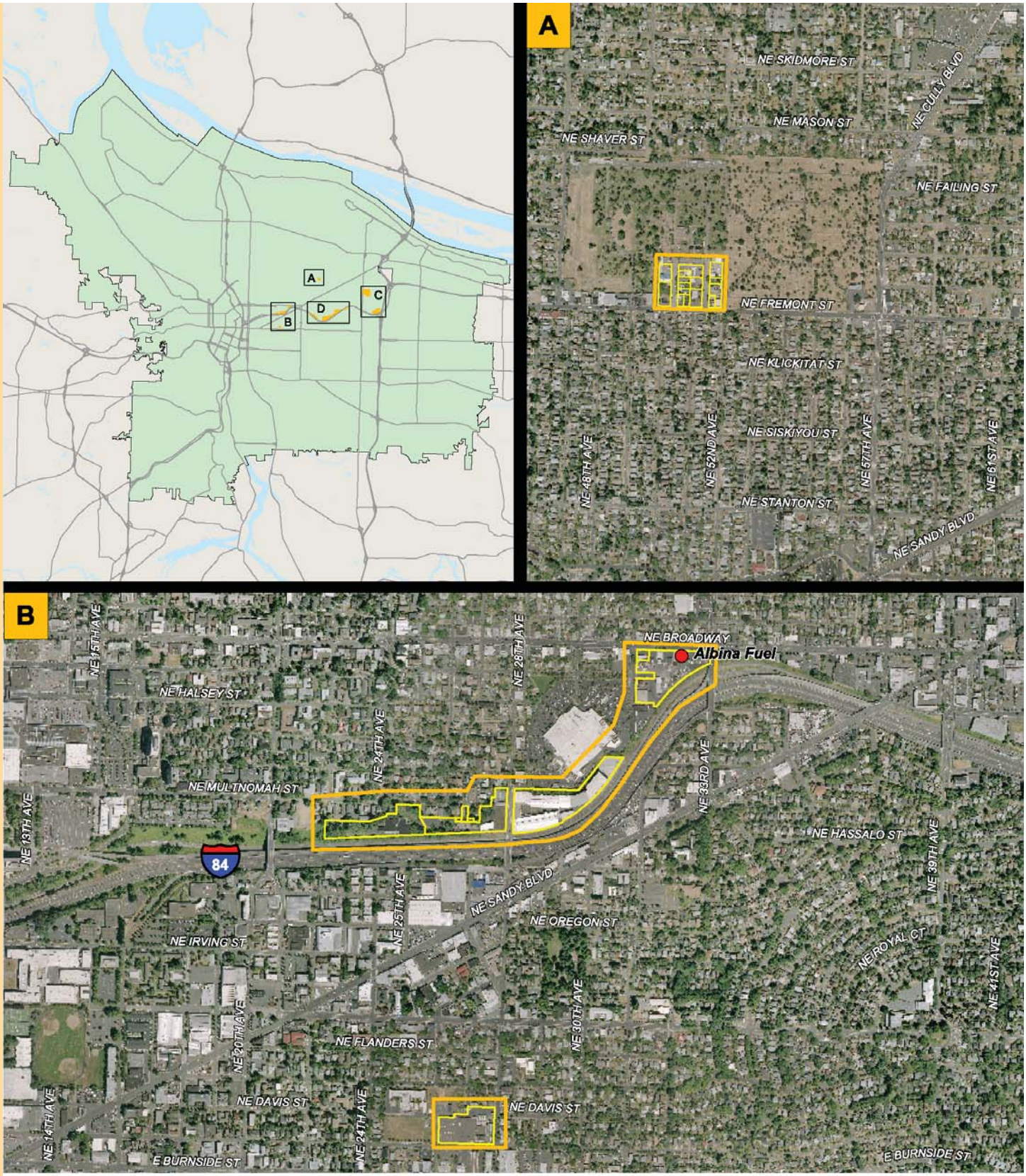
	Sites	% of District	Acres	% of District
Urban Renewal Area	0	0%	0	0%
Enterprise Zone	42	58%	43	37%
New Market Tax Credits	1	1%	3	0%

Source: Portland Development Commission

CAPITAL IMPROVEMENTS PROGRAM PROJECTS

No capital projects in the current City of Portland CIP were identified that would expand the district's development capacity.

A neighborhood park adjoins the Oregon Catholic Press publishing facility in the Banfield District.



Banfield District

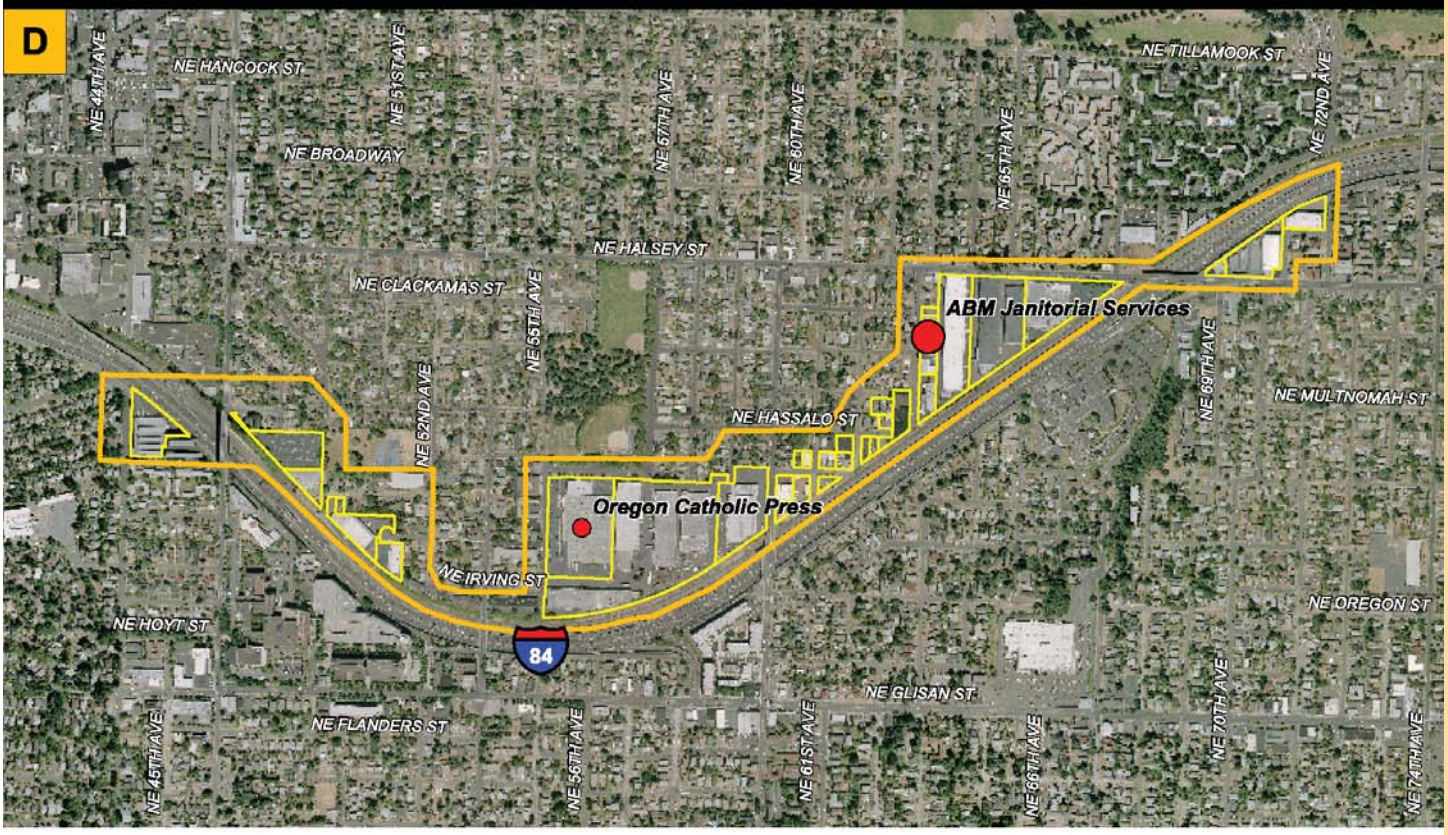
Employment

- 100 - 249 Employees
- 250 - 499 Employees
- 500+ Employees

- Site Boundary
- Inventory Area Boundary

N

0 230 460 920 1,380 1,840 Feet



BANFIELD DISTRICT

Information Sources:
- Orthophotography - Metro Regional Consortium, 10' or 20' pixel resolution (2003).
- Sites - Bureau of Planning, based on taxlot information provided by City of Portland Corporate Geographic Information System and Multnomah County Assessment and Taxation (February 2003).
- Employers - Inside Prospects (2003).

- Information sources are described further in Chapter 3.

Investing in Portland's Future

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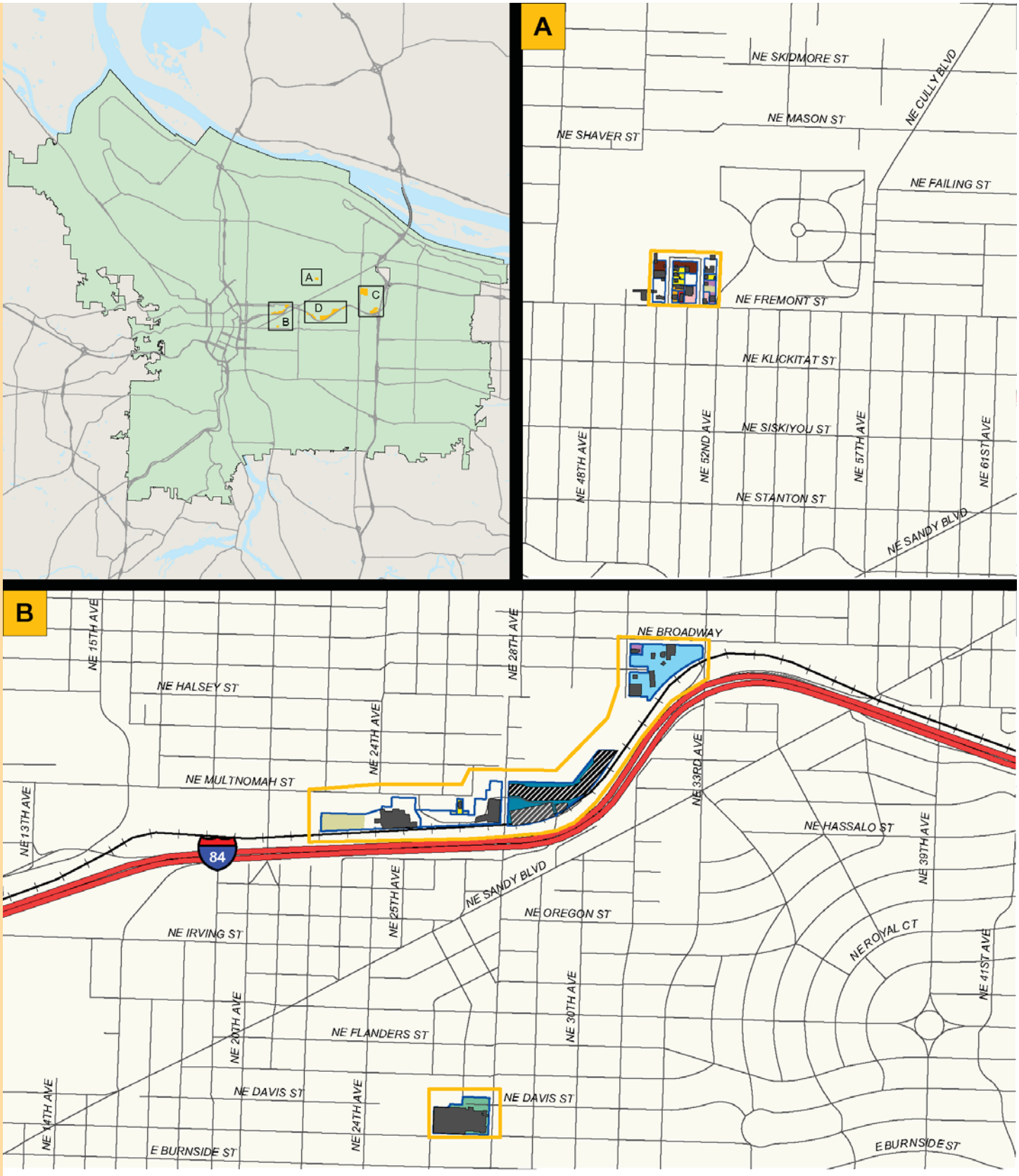


Banfield Facilities

Heavy Industrial
- Heavy Industrial (overlay)

General Industrial
- Manufacturing
- Utilities
- Construction

Distribution
- Freight
- Transportation
- Wholesale

Multi-Tenant
- 4 + Employers
- 2-3 Employers

Industrial Services
- Public
- Rental & Maintenance

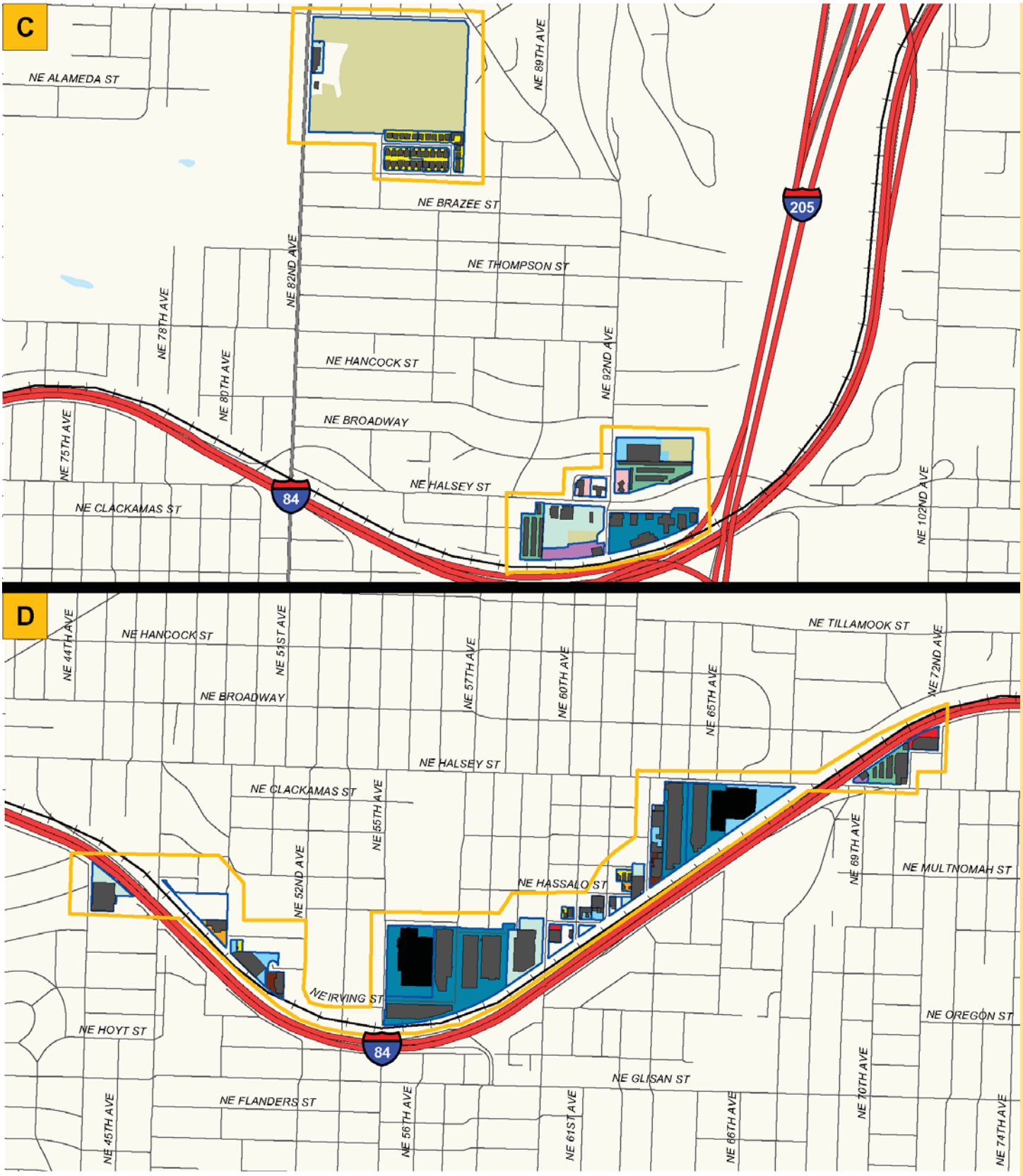
Non-Industrial
- Retail
- Services
- Residential

- Open Space
- Vacant Land
- 3 + Story (overlay)
- Structures >100,000 Sq Ft
- Other Structures
- Site Boundary
- Inventory Area Boundary

Transportation Infrastructure
- Railroads
- Freeways
- Major Truck Streets
- Streets

N

0 215 430 860 1,290 1,720 Feet



BANFIELD DISTRICT

Information Sources:
- Facilities - Bureau of Planning, based on employment data by Inside Prospects (2003), supplemented by InfoUSA data (2003) and Bureau of Planning field inspection (2004). Utility and public facilities also include unoccupied sites in corresponding ownership. Bureau of Planning identified freight terminal and heavy industrial sites from use and scale characteristics.
- Railroads - Metro from 2000 Regional Transportation Plan.
- Truck Streets - Portland Office of Transportation from Transportation System Plan (2002).

- Information sources and methodology are described further in Chapter 3.

Investing in Portland's Future

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Banfield Growth Capactiy

Tiers - Vacant Land

- A - No Constraints
- B - Land Banked
- C - Infill
- D - Underutilized
- E - Other
- F - Partly Buildable
- Vacant Open Space
- Public/Utilities
- Unoccupied DEQ Sites
- Site Boundary
- Inventory Area Boundary

Capital Improvements Program

- Bureau of Environmental Services Projects
- Portland Office of Transportation Projects
- Bureau of Water Works Pojects

Transportation System Plan

- Freight Projects

Potential Cleanup Sites

- Active Investigation or Cleanup
- No Further Action Required

Environmental Constraints

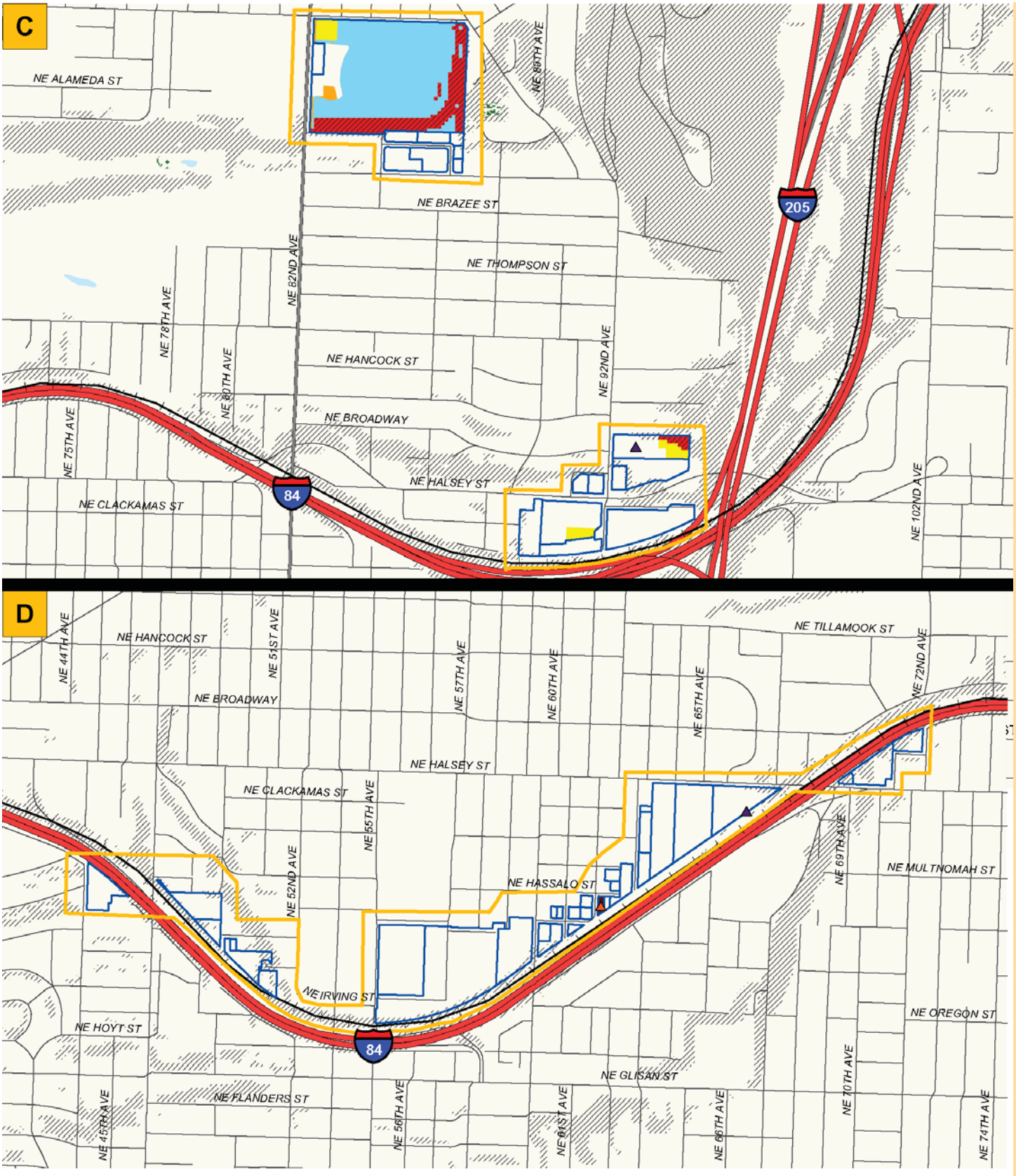
- Wetlands
- Slope > 10%
- 100 yr & 1996 Floodplains

Transportation Infrastructure

- Railroads
- Freeways
- Major Truck Streets
- Streets

N

0 220 440 880 1,320 1,760 Feet



BANFIELD DISTRICT

Information Sources:
- Vacant land - tiers defined by Bureau of Planning from Metro (2002) vacant land data. Tier F is affected by the floodplain, slope, or wetland constraints shown or Metro Goal 5 habitat resources (2004). Open space includes OS, p, and n zones from BOP zoning (2004) and mitigation sites, 10-year floodplain, and public drainage facilities from Portland Bureau of Environmental Services (2004).
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- Environmental Constraints - wetlands and 1996 flood inundation area from Metro Title 3 regulations. Modeled 100-year floodplain by Metro (2002).

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Investing in Portland's Future

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The Outer Southeast District

Precision Castparts Corporation, a metals manufacturer, is the largest employer in the Outer Southeast District.

Main Features

- A group of small, distinct employment and industrial areas along the I-205 Freeway and Johnson Creek
- A concentration of 3,700 manufacturing jobs, particularly metals producers near Johnson Creek
- Growth potential in a 114-acre, mostly vacant site in Lents

The 472-acre Outer Southeast District is a collection of small, dispersed areas concentrated along the I-205 Freeway and Johnson Creek.

Manufacturing is the leading employment sector, providing 45 percent of the district's 3,700 jobs. The district's specialty industries are primary metals manufacturing (PCC Structurals), durable goods wholesalers, fabricated metal products manufacturing, amusement (e.g., Funtastic Rides), and furniture manufacturing (e.g., Promotion Products).

The district provides surrounding neighborhoods with a source of jobs, while its small size, mix of uses, and fine grain—average site size is 1.7 acres—limit the potential for adverse industrial impacts on residential neighbors. Multi-tenant and non-industrial facilities make up 55 percent of the occupied, developed land, compared to 26 percent in all of the city's industrial districts.

The Outer Southeast District has four distinct sections. The area along Johnson Creek Boulevard is characterized by a group of large manufacturing facilities, including PCC Structurals, Pacific Hoe Saw and Knife, and East Side Plating Works. The Lents industrial area has a mix of primarily multi-tenant and service facilities. The small area along Powell Boulevard near I-205 is distinguished by the transportation-related facilities at its two largest sites, Tri-Met and Funtastic Rides. The small-lot area at Stark Street near I-205 has employment zoning and a mix of primarily services, wholesalers, and housing.

A 114-acre site in the district is for sale in the Lents area. It includes an estimated 18 acres of buildable, vacant land and another 39 acres of partly buildable vacant land affected by floodplain or habitat constraints.

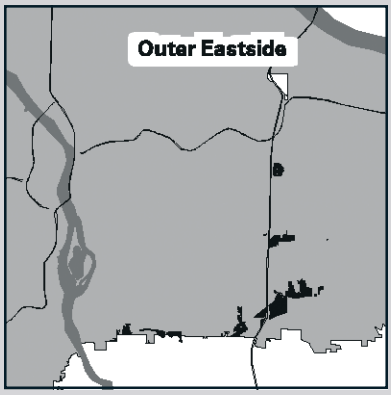
LARGEST EMPLOYERS

	INDUSTRY	JOBS
PCC Structural Corp.	Nonferrous Die-castings Except Aluminum	500+
Promotion Products Inc.	Wood Partitions And Fixtures	250-499
Pacific Hoe Saw & Knife	Machine Tool Accessories	250-499
East Side Plating Works	Electroplating Plating Polishing	250-499
Automotive Indus. Mktg.	Service Establishment Equipment	50-99
Spencer Environmental	Scrap And Waste Materials	50-99
Centerpoint Graphics Inc.	Commercial Printing	50-99
Helping Hands Program	Home Health Care Services	50-99
AIMCO Corporation	Hardware	50-99
Eagle Industries of Amer.	Industrial Machinery And Equipment	50-99

Source: Inside Prospects, 2003

LOCATION

The Outer Eastside District is the group of small industrial areas along the southern city border, in Lents, and along the I-205 freeway.



SIZE

- 285 sites on 471 acres
- 3 percent of the city's industrial land
- 3,717 jobs in 208 establishments (2002)

Aimco Corporation is a hardware wholesaler.

Mix of Industries

ESTABLISHMENTS AND JOBS, 2002

	NAICS	Establishments	Jobs/Establishment	Jobs	% of All Jobs in Area: District	% of All Jobs in Area: All Districts
All Sectors		208	18	3,717	100%	100%
Production & Raw Materials		71	30	2,097	56%	34%
Manufacturing	311-339	38	44	1,665	45%	25%
Construction	236-238	27	12	317	9%	8%
Utilities & Waste	A	5	19	94	3%	1%
Distribution		31	13	413	11%	34%
Wholesale	423-425	22	16	346	9%	14%
Transportation	481-493	9	7	67	2%	19%
Services		106	11	1,207	32%	32%
Information	B	*		*		
Management	551	*		*		
Rental & Maintenance	C	26	8	209	6%	6%
Government	921-928	0	0	0	0%	1%
Retail	441-454	26	9	242	7%	5%
Training & Unions	D	*		*		
Other Services	E	49	14	707	19%	11%
Highest Employment Industries						
Primary Metal Mfg.	331	*		*		
Wholesale, Durable	423	17	19	331	9%	9%
Specialty Contractors	238	19	14	262	7%	6%
Fabricated Metal Mfg.	332	16	16	252	7%	4%
Amusement, Recreation	713	3	67	201	5%	0%
Social Assistance	624	*		*		
Furniture & Related Mfg.	337	4	39	154	4%	1%
Repair and Maintenance	811	19	7	134	4%	2%
Motor Vehicle Dealers	441	9	13	117	3%	1%
Machinery Mfg.	333	*		*		

NAICS: A = 221, 517, 562; B = 511-519, exc. 517;
C = 532, 5617, 811, 8123; D = 6112-6117, 6213, 81393;
* Data suppressed for confidentiality

Source: Covered Employment, Oregon Employment Department

FACILITY TYPES

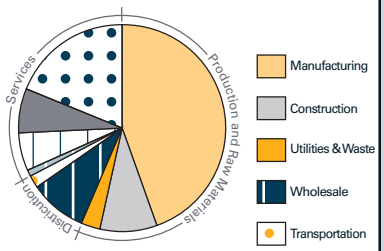
Facility Type	Sites	Total Acres	Developed Area*: Acres	Developed Area*: Average Size	% of Occupied** Developed Area: District	% of Occupied** Developed Area: All Districts
Occupied Sites**	228	419	288	1.26	100%	100%
General Industrial	32	66	44	1.38	15%	17%
Manufacturing	17	40	29	1.68	10%	13%
Construction	11	19	9	0.77	3%	2%
Utilities	4	7	6	1.41	2%	2%
Distribution	17	74	53	3.12	18%	47%
Freight Terminal	0	0	0	0	0%	32%
Wholesale	10	35	25	2.48	9%	9%
Transportation	7	39	28	4.03	10%	6%
Multi-Tenant	28	154	96	3.43	33%	18%
4+ Tenants	7	130	75	10.69	26%	12%
Industrial Services	28	41	33	1.18	11%	11%
Rental & Mtnc.	15	11	10	0.66	3%	2%
Public	13	30	23	1.74	8%	9%
Non-Industrial	123	84	63	0.51	22%	8%
Retail	22	38	28	1.28	10%	2%
Other Services	18	12	11	0.61	4%	4%
Residential	83	34	24	0.29	8%	2%
Unoccupied Sites	57	52	36	0.63		
Heavy Industrial	2	29	13	6.50	5%	48%

* Developed area does not include vacant (unimproved) land or open space.
** Occupied sites are those with a current tenant.

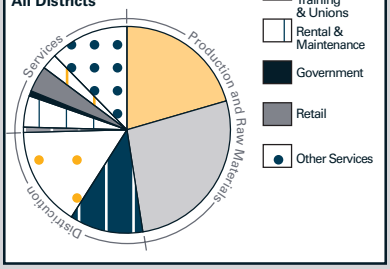
Source: Bureau of Planning

Jobs By Sector, 2002

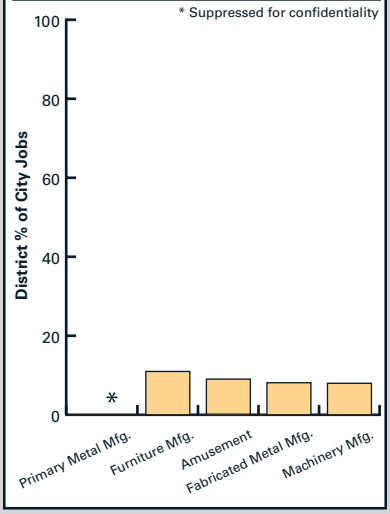
Outer Southeast



All Districts

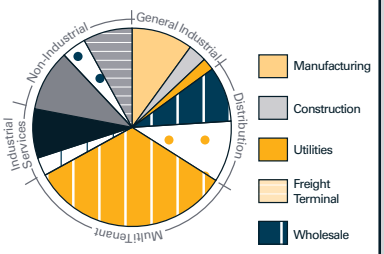


Largest District Specialties

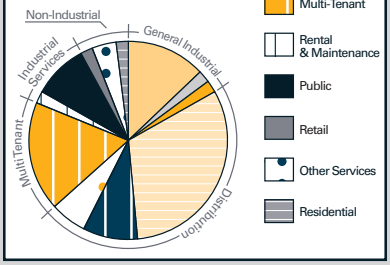


Land Area by Facility Type

Outer Southeast



All Districts



Site Conditions

ZONING

	Industrial			Employment		
	IH	IG1	IG2	EG1	EG2	Other
Acres	83	28	159	2	158	39
% of All Acres	18%	6%	34%	0%	34%	8%

* IH = Heavy Industrial. IG = General Industrial. EG = General Employment. IG1 and EG1 are small-lot zones

Source: Bureau of Planning

SITE SIZE

(acres)	< 1	1-2	3-9	10-19	20-49	50+	
Sites	210	46	19	9	0	1	Average
% of District	74%	16%	7%	3%	0%	0%	Site Size
Acres	76	76	93	124	0	103	= 1.65
% of District	16%	16%	20%	26%	0%	22%	

Source: Bureau of Planning

PROPERTY VALUES

	District ($ million)	Average per sq. ft.*
Land	$69.1	$4.13
Improvements	$146.8	$8.77
Total	$215.9	$12.91

High Land Value Sites (exceeding $6/sq. ft.)

Sites	169
Acres	80.3
% of District	17%

Average Improvements/ Land Value Ratio = 2.12

* Square footage does not include open space.

Source: Multnomah County Assessment & Taxation, March - July 2004

ENVIRONMENTAL CONSTRAINTS

	Acres	% of District
Open Space*	87	18%
Constrained Land (Composite)	233	49%
100 Year Floodplain	136	29%
Other 1996 Inundation Area	4	1%
Title 3 Wetlands	6	1%
10% or Greater Slope	69	15%
Goal 5 Significant Habitat	190	40%
Open Space or Constrained	239	51%

Potential Cleanup Sites

5 sites with cleanup or investigation projects;

5 cleaned or investigated sites with "no further action required".

* OS, p, n zones; mitigation sites; public drainage; 10-year floodplain

Source: Oregon DEQ - cleanup sites

PROXIMITY TO TRANSPORTATION INFRASTRUCTURE

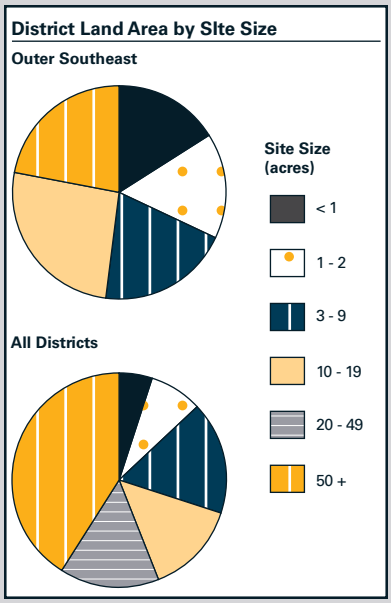
TRUCK & TRANSIT ACCESS

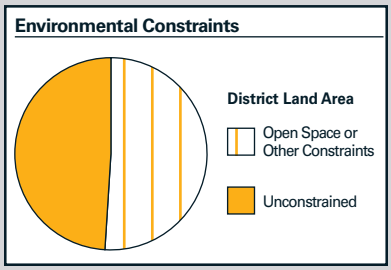
Miles from Site	Major Truck Street Acres	Major Truck Street % of District	Freeway Ramp Acres	Freeway Ramp % of District	Miles from Site	Bus Stop Acres	Bus Stop % of District
< 1	396	84%	384	82%	< 1/4	356	76%
< 2	472	100%	449	95%	< 1/2	471	100%
< 5			472	100%			

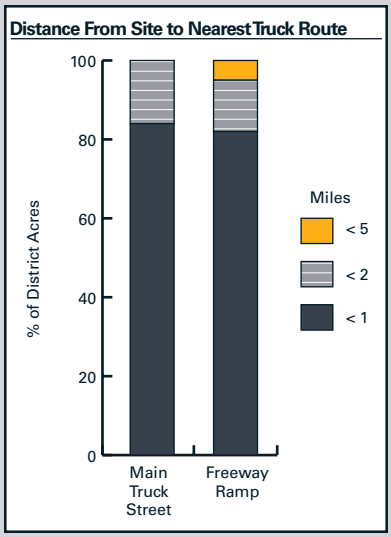
MULTIMODAL FREIGHT ACCESS

	Airport Acres	Airport % of District	Railroad Acres	Railroad % of District	Harbor Acres	Harbor % of District
Adjacent	0	0%	19	4%	0	0%
< 5	34	7%				

Source: Bureau of Planning







OUTER SOUTHEAST DISTRICT

Growth Capacity

A 114-acre vacant site near I-205 and Foster Road.

A partly vacant site on Powell Boulevard near I-205.

VACANT LAND (UNIMPROVED ACRES) 2002

	All Vacant Land	Buildable, Private Land*			Partly Buildable Tier F**	Public & Utility Sites	Land for Sale
		Total	Unconstrained Tier A	Buildable Tier B - E			
All Vacant Sites	105	19.4	0.3	19.1	39.4	4.6	114.3
Potential Cleanup Sites1		0.2	0.0	0.2	0.6	0.0	

* Buildable private land includes all vacant land minus identified open space, Tier F, and public and utility sites with exceptions. Tiers B-E identify sites that may be affected by availability or use constraints.

** Tier F land is affected by either 100-year floodplain, 1996 inundation area, Title 3 wetland, slope exceeding 10 percent, or Metro Goal 5 habitat inventory. Identified open space is not included.

Sources: Metro - vacant; Bureau of Planning - Tiers A-F; CoStar - land for sale

OTHER POTENTIALLY UNDERUTILIZED PROPERTY

	Cleanup/Investigation			Industrial Land in Residential Use**		Developed Space on Market, April 2004	
	Sites	Acres	% of District	Sites	Acres	Sites	Area
All Land in Sites	5	26	5%	83	34	For Sale	
Developed/Occupied Portion	4	25	5%			3	38,792 sf
Underutilized Portion*						For Lease	
(Potential Brownfields)	1	0.8	0%			7	508,158 sf
Unoccupied Sites	0	0	0%				
Vacant Land on Occupied Sites	1	0.8	0%				

* Unoccupied sites (no tenant) and vacant (unimproved) parts of sites are underutilized. Cleanup liability may complicate redevelopment on some parts of these sites.

** Non-conforming residential use on site zoned or designated in *Comprehensive Plan* as industrial or general employment.

Sources: CoStar - space for sale or lease; Oregon DEQ - cleanup sites; Multnomah County Assessment & Taxation - market property value.

ACCESS TO FINANCIAL TOOLS

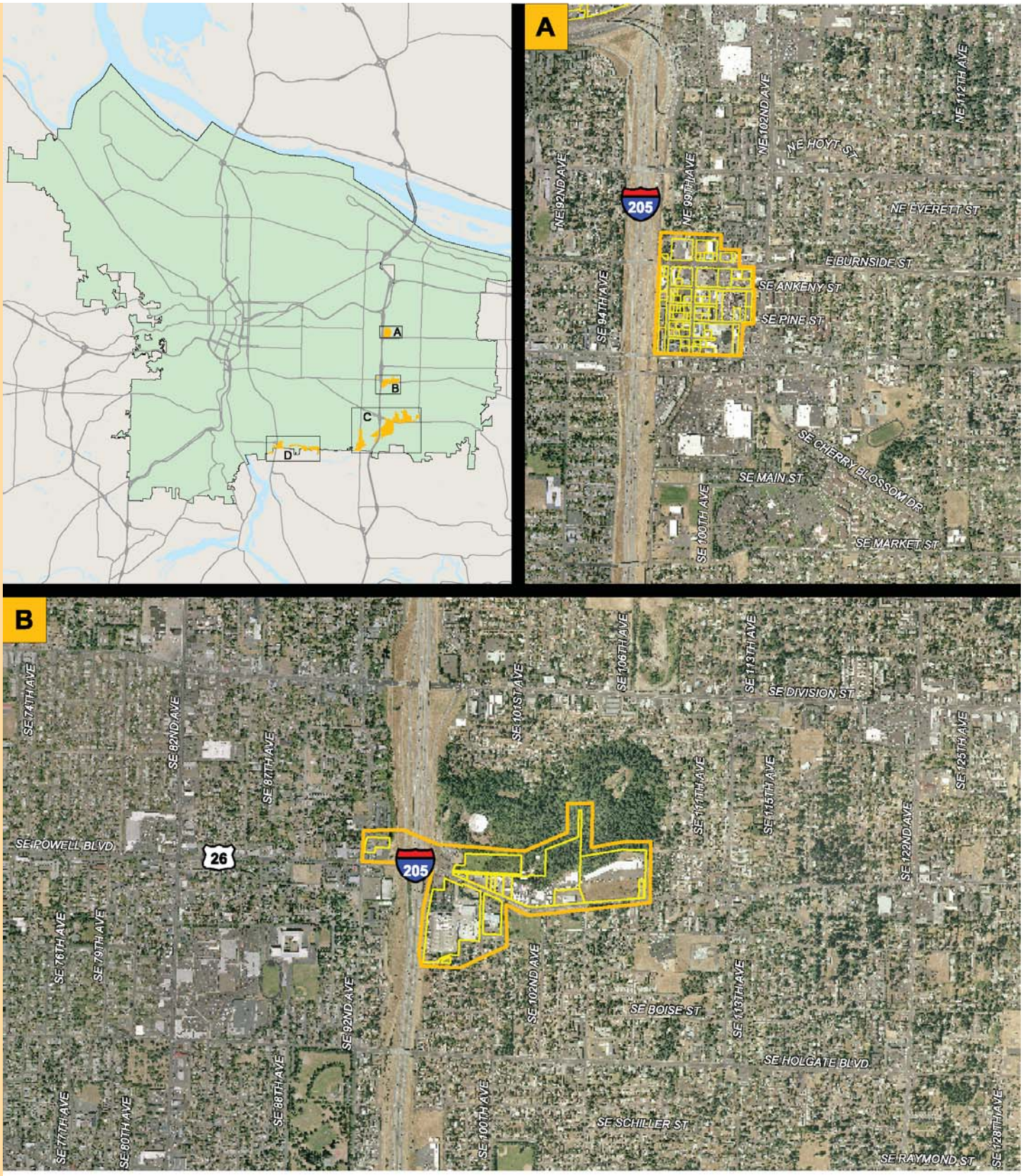
	Sites	% of District	Acres	% of District
Urban Renewal Area	222	78%	329	70%
Enterprise Zone	0	0%	0	0%
New Market Tax Credits	196	69%	389	83%

Source: Portland Development Commission

CAPITAL IMPROVEMENTS PROGRAM PROJECTS

Capital projects in the current City of Portland CIP that are expected to expand the district's development capacity:

- Redevelopment assistance (PDC000107) - environmental assessments, acquisition and aggregation of parcels, and site remediation in Lents Town Center.



Outer Southeast District

Employment

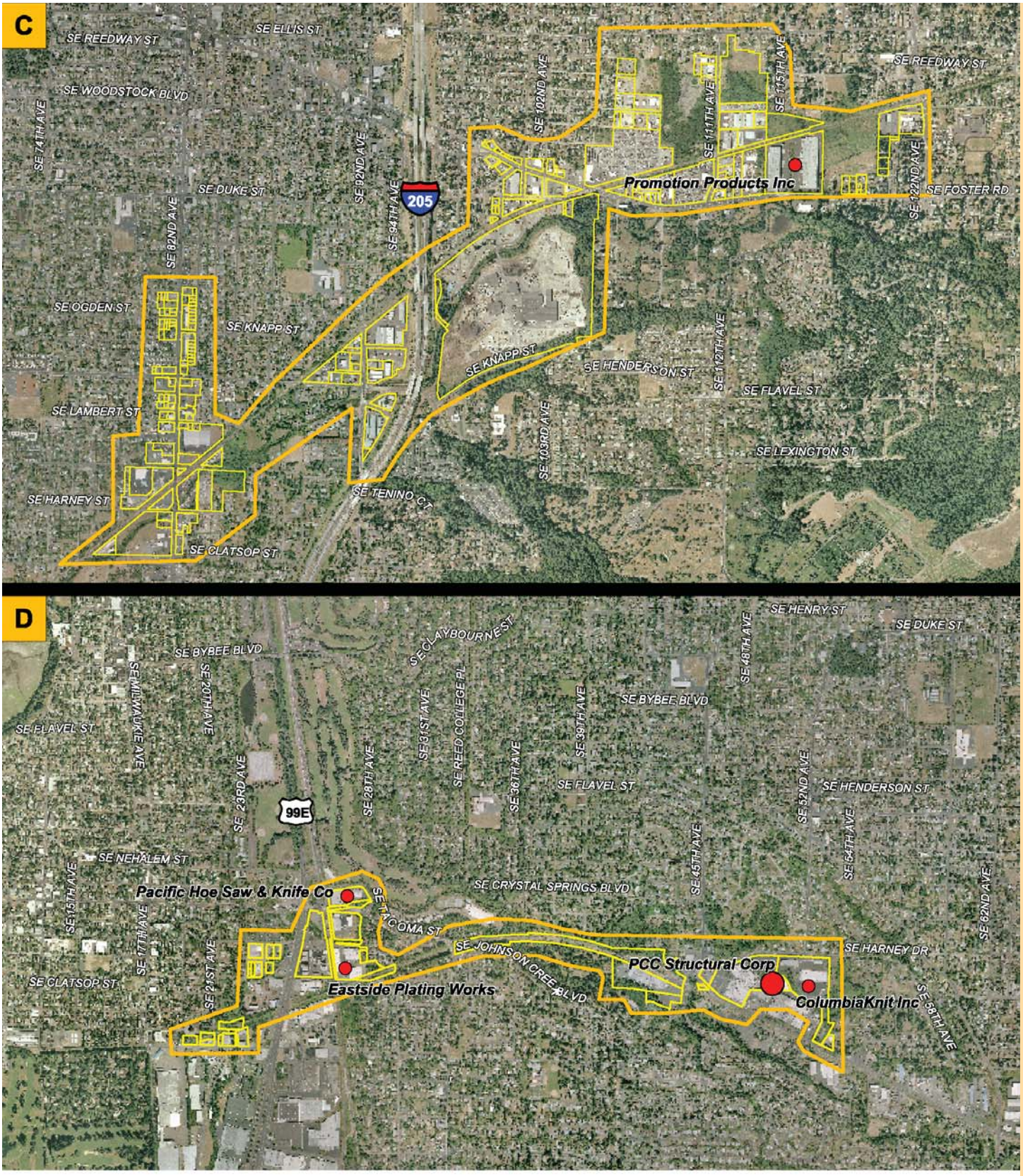
- 100 - 249 Employees
- 250 - 499 Employees
- 500+ Employees

Site Boundary

Inventory Area Boundary

N

0 360 720 1,440 2,160 2,880 Feet



Information Sources:
- Orthophotography - Metro Regional Consortium, 10' or 20' pixel resolution (2003).
- Sites - Bureau of Planning, based on taxlot information provided by City of Portland Corporate Geographic Information System and Multnomah County Assessment and Taxation (February 2003).
- Employers - Inside Prospects (2003).

- Information sources are described further in Chapter 3.

Investing in Portland's Future

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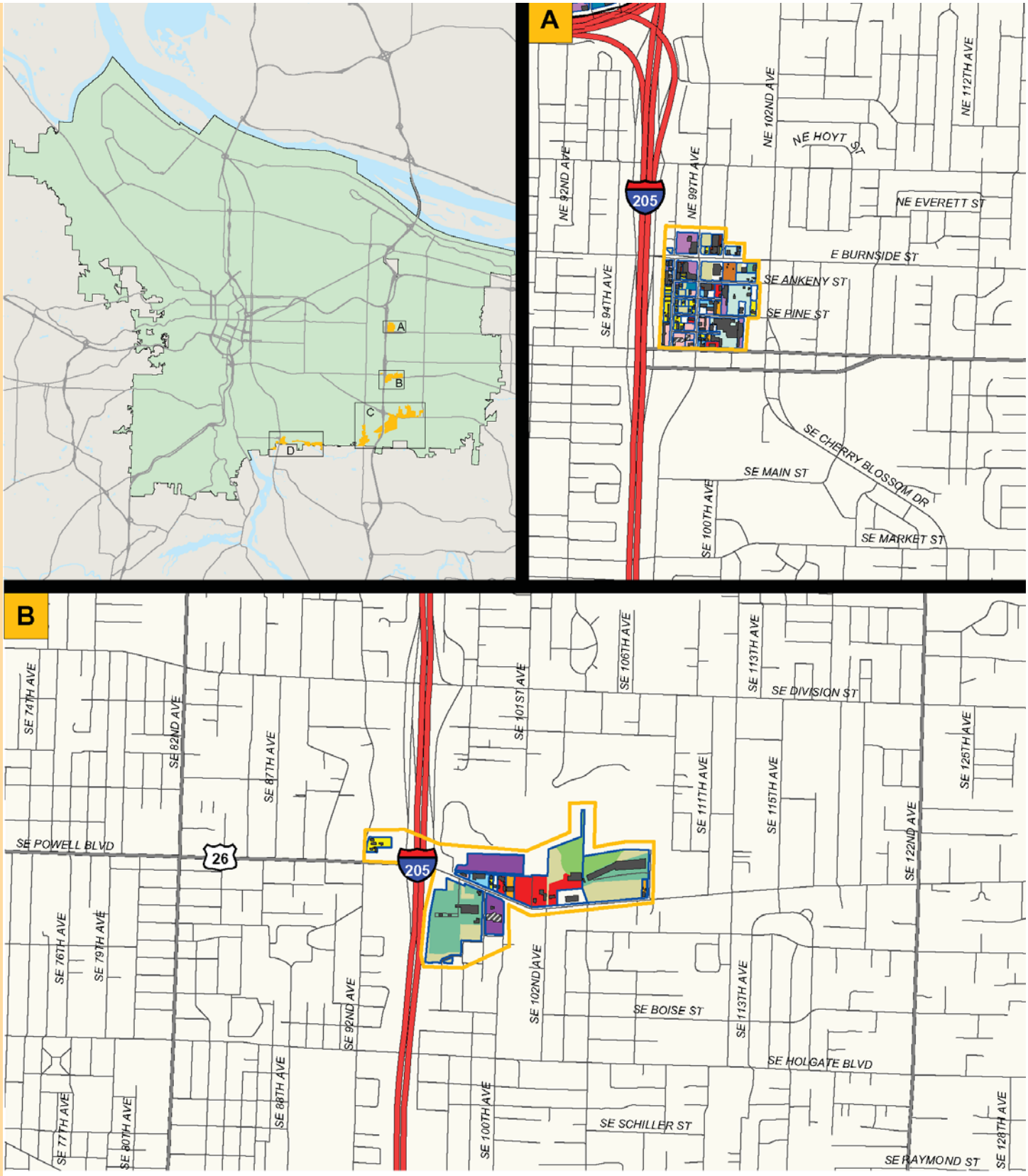


Outer Southeast Facilities

Heavy Industrial
- Heavy Industrial (overlay)

General Industrial
- Manufacturing
- Utilities
- Construction

Distribution
- Freight
- Transportation
- Wholesale

Multi-Tenant
- 4 + Employers
- 2-3 Employers

Industrial Services
- Public
- Rental & Maintenance

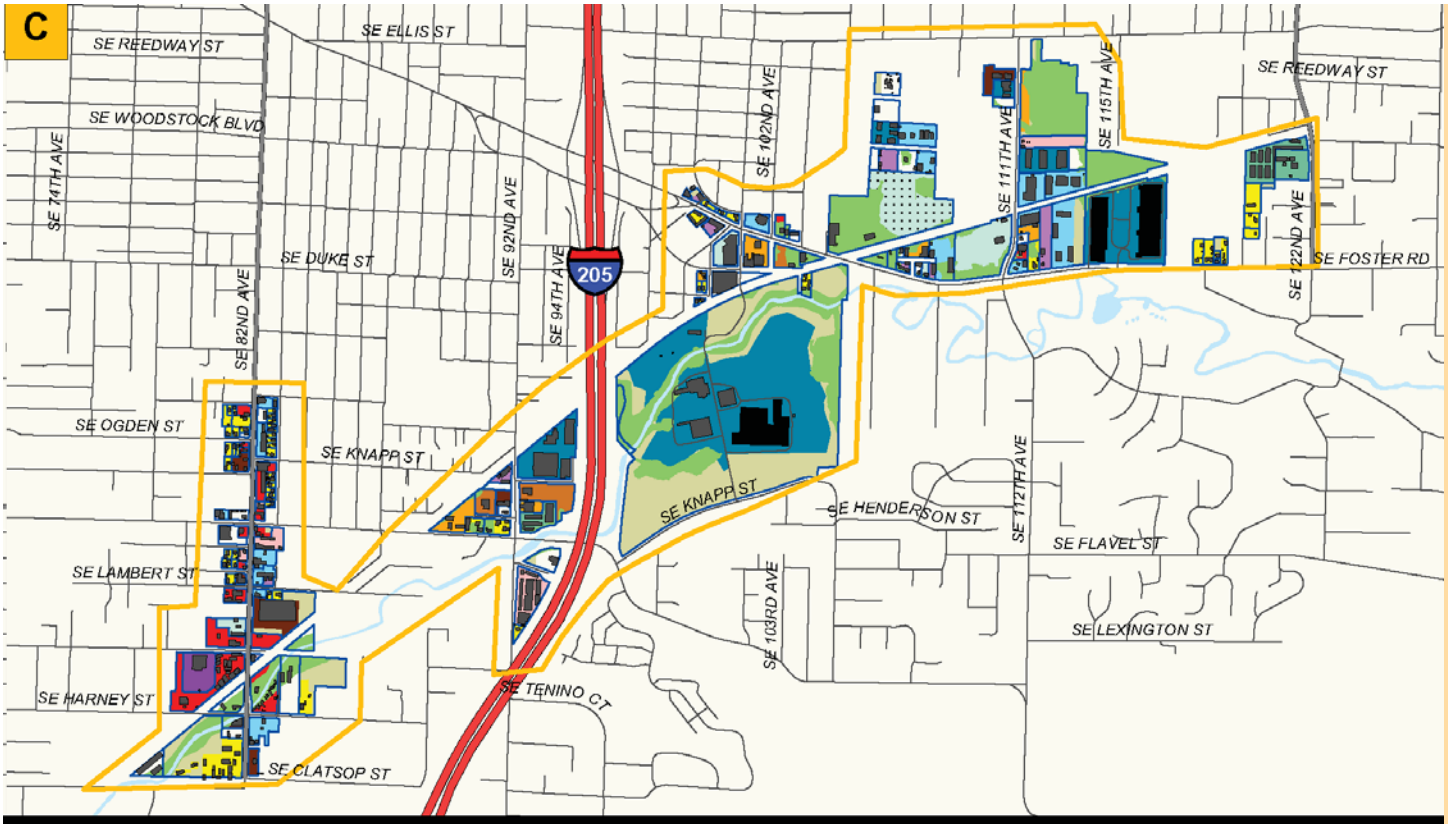
Non-Industrial
- Retail
- Services
- Residential

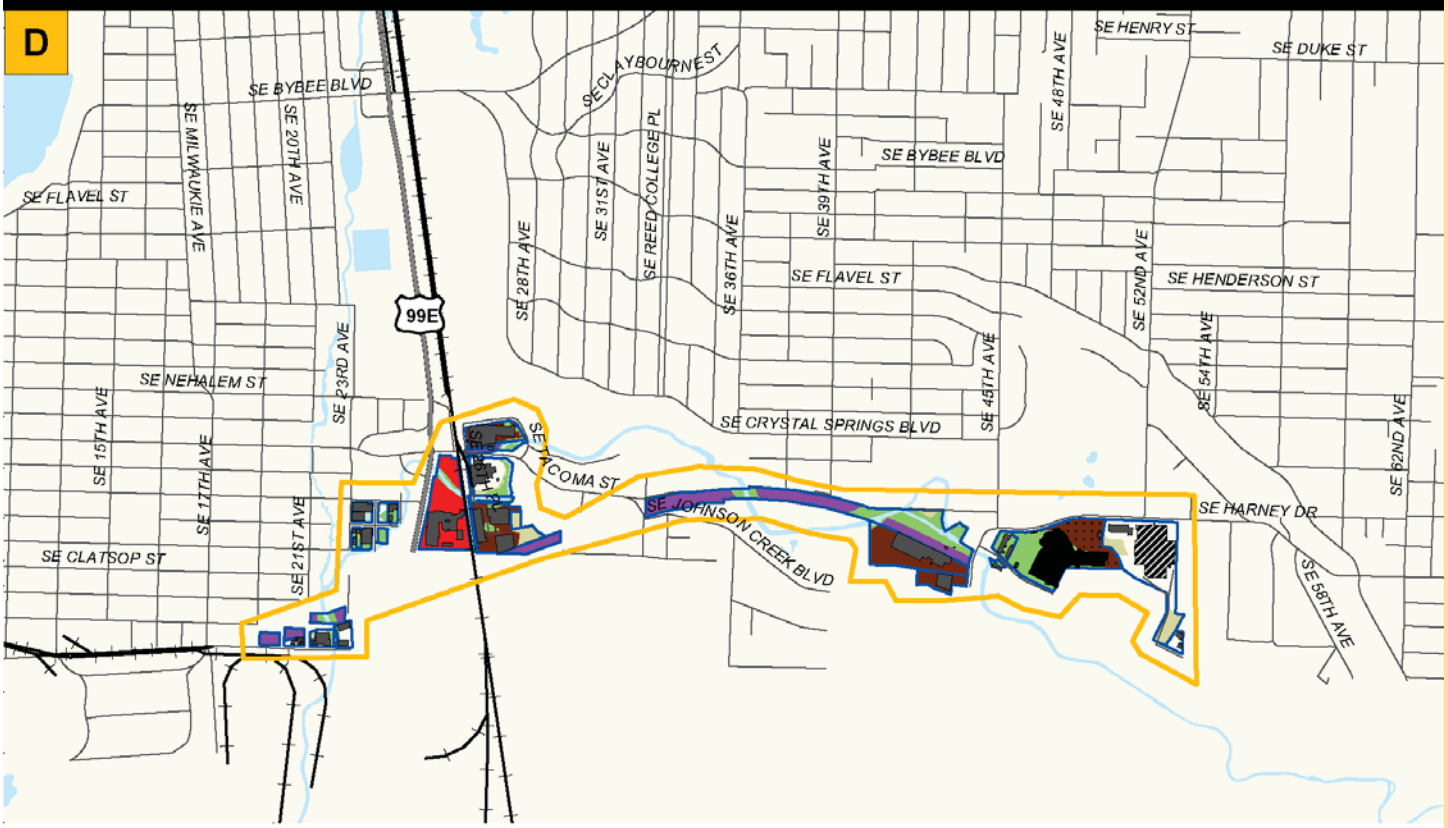
- Open Space
- Vacant Land
- 3 + Story Structures (overlay)
- Structures >100,000 Sq Ft
- Other Structures
- Site Boundary
- Inventory Area Boundary

Transportation Infrastructure
- Railroads
- Freeways
- Major Truck Streets
- Streets

N

0 350 700 1,400 2,100 2,800 Feet





Information Sources:
- Facilities - Bureau of Planning, based on employment data by Inside Prospects (2003), supplemented by InfoUSA data (2003) and Bureau of Planning field inspection (2004). Utility and public facilities also include unoccupied sites in corresponding ownership. Bureau of Planning identified freight terminal and heavy industrial sites from use and scale characteristics.
- Railroads - Metro from 2000 Regional Transportation Plan.
- Truck Streets - Portland Office of Transportation from Transportation System Plan (2002).

- Information sources and methodology are described further in Chapter 3.

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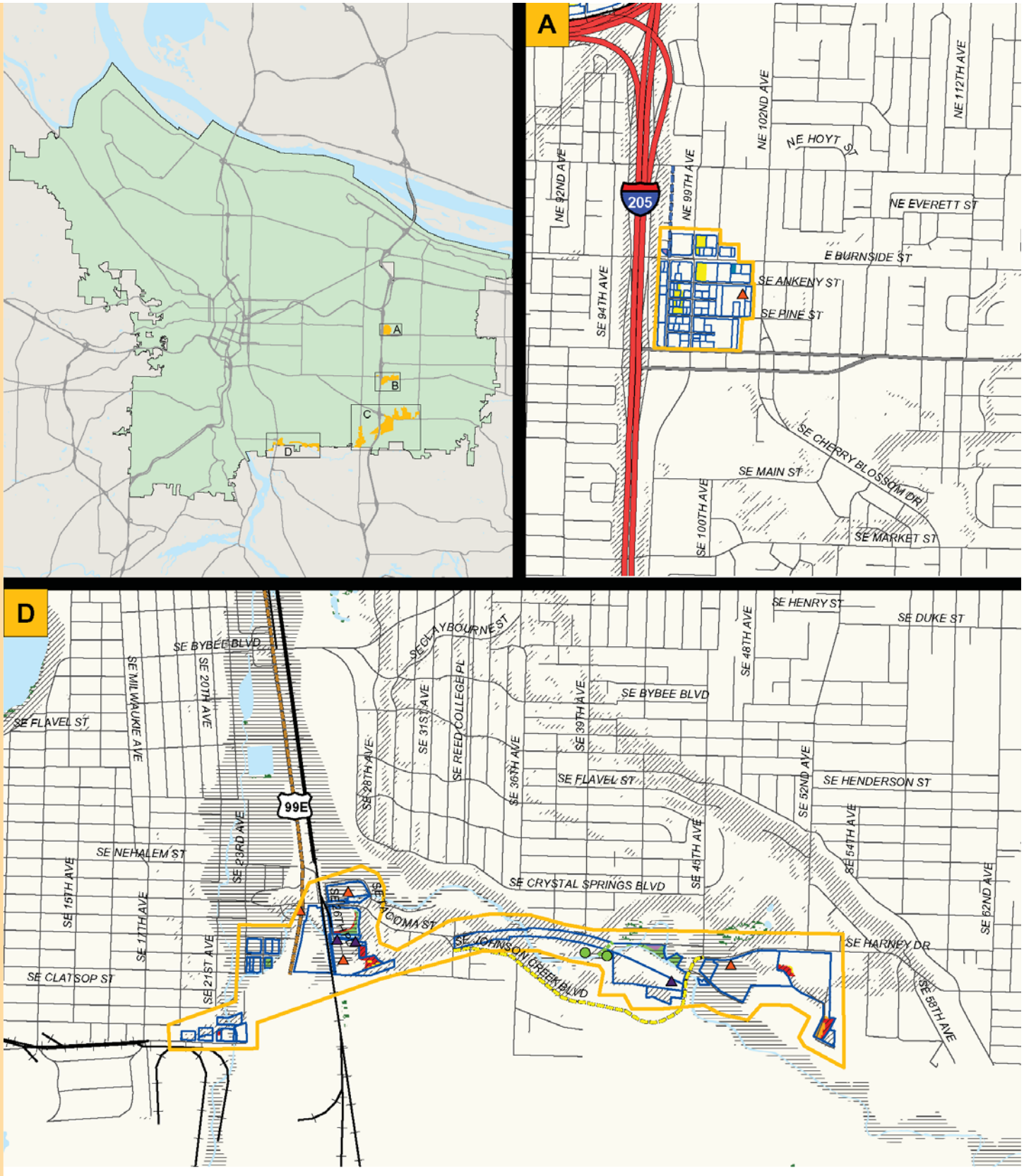
OUTER SOUTHEAST DISTRICT



Outer Southeast Growth Capactiy

Tiers - Vacant Land

- A - No Constraints
- B - Land Banked
- C - Infill
- D - Underutilized
- E - Other
- F - Partly Buildable
- Vacant Open Space
- Public/Utilities
- Unoccupied DEQ Sites
- Site Boundary
- Inventory Area Boundary

Capital Improvements Program

- Bureau of Environmental Services Projects
- Portland Office of Transportation Projects
- Bureau of Water Works Pojects

Transportation System Plan

- Freight Projects

Potential Cleanup Sites

- Active Investigation or Cleanup
- No Further Action Required

Environmental Constraints

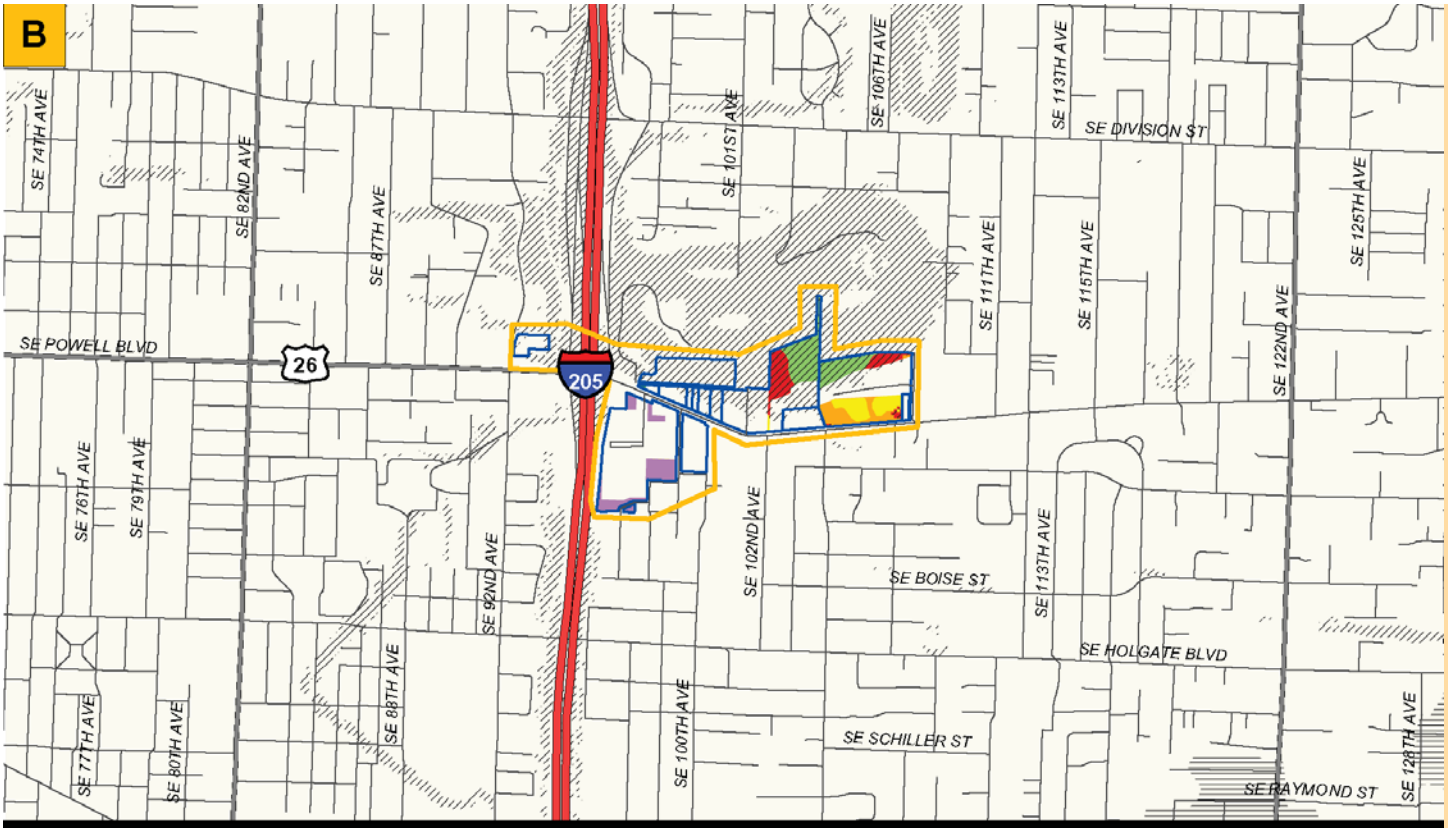
- Wetlands
- Slope > 10%
- 100 yr & 1996 Floodplains

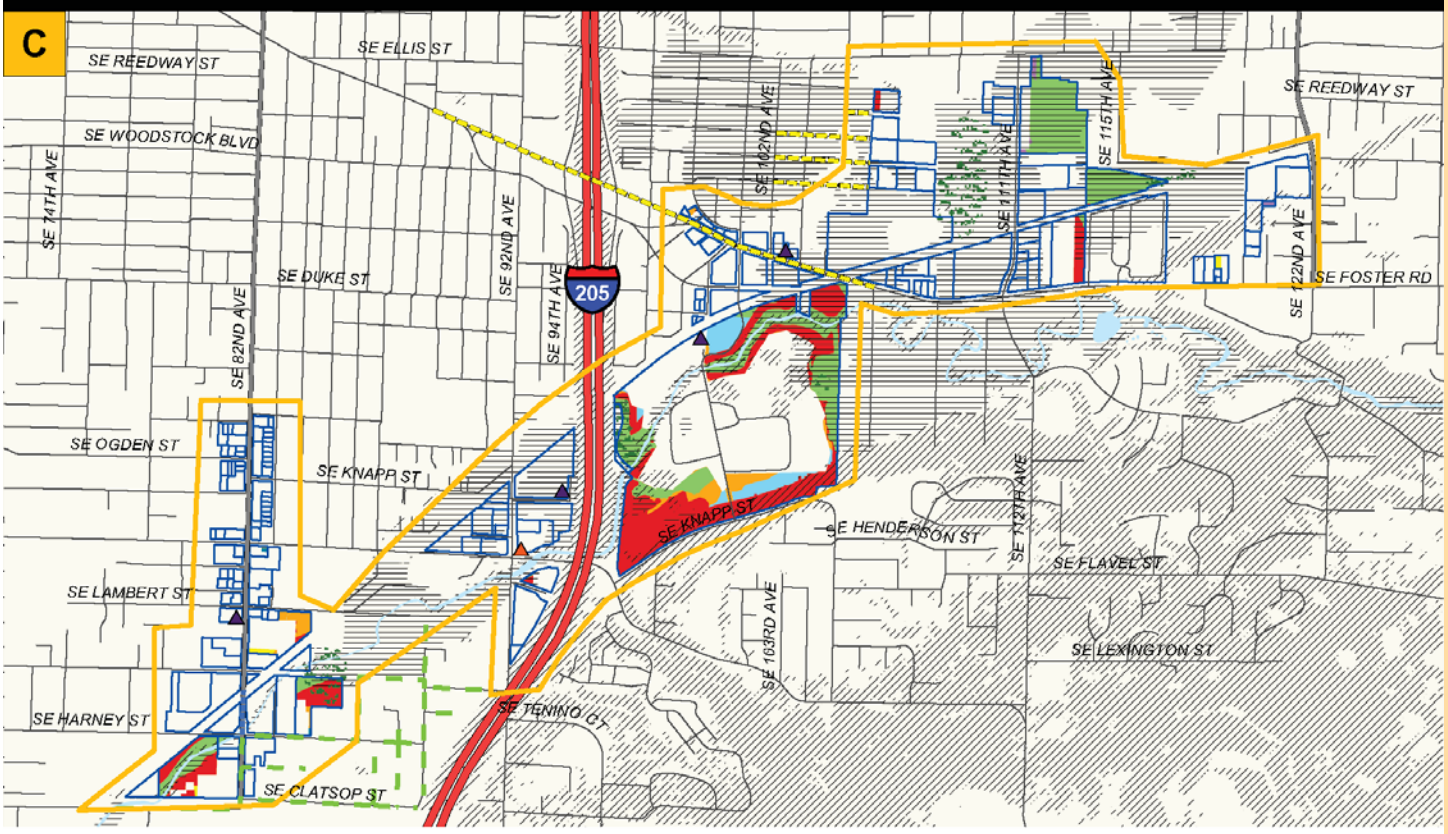
Transportation Infrastructure

- Railroads
- Freeways
- Major Truck Streets
- Streets

N

0 355 710 1,420 2,130 2,840 Feet





Information Sources:
- Vacant land - tiers defined by Bureau of Planning from Metro (2002) vacant land data. Tier F is affected by the floodplain, slope, or wetland constraints shown or Metro Goal 5 habitat resources (2004). Open space includes OS, p, and n zones from BOP zoning (2004) and mitigation sites, 10-year floodplain, and public drainage facilities from Portland Bureau of Environmental Services (2004).
- Capital Improvements Program projects - City of Portland Corporate Geographic Information System (2004)
- Transportation System Plan projects - Portland Office of Transportation (2004).
- Potential Cleanup Sites - Oregon Department of Environmental Quality from Environmental Cleanup Site Information database (April 2004) mapped in approximate locations by Portland Bureau of Environmental Services. Data in ECSI is "working information" and some may be unconfirmed, outdated, or incomplete.
- Environmental Constraints - wetlands and 1996 flood inundation area from Metro Title 3 regulations. Modeled 100-year floodplain by Metro (2002).

- Information sources and methodology are described further in Chapter 3.

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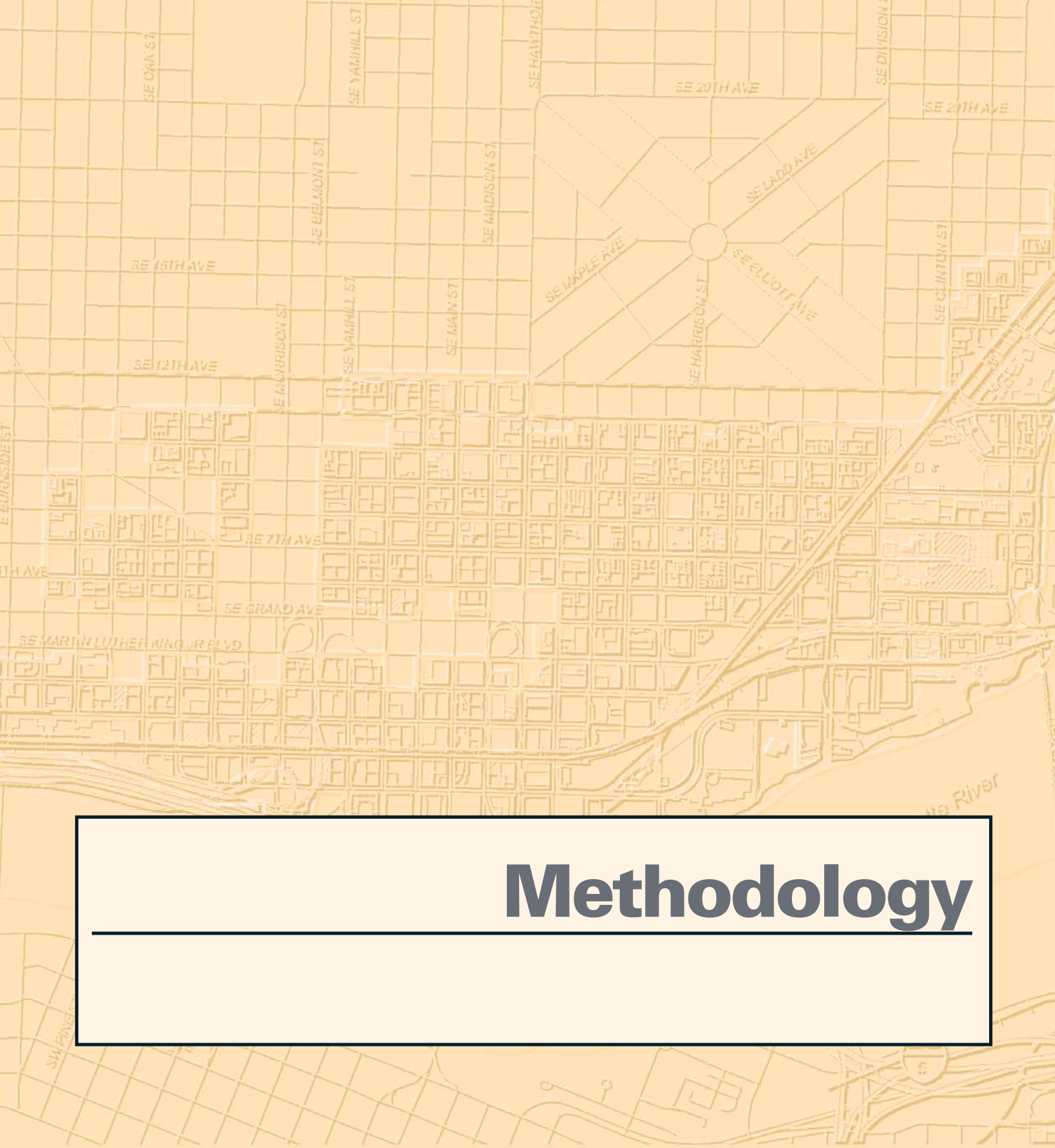

Methodology

INVENTORY METHODOLOGY

Inventory Area

The 15,500-acre industrial land inventory area is the portion of the city committed to future industrial and industrially related uses. It consists of all taxlots that intersect (entirely or in part) with General Industrial (IG), Heavy Industrial (IH), or General Employment (EG) zoning in the *Portland Zoning Code* and any additional taxlots that intersect corresponding Industrial Sanctuary or Mixed Employment designations in Portland's *Comprehensive Plan*. The latter are expected to convert to industrial or employment zones over the long term. Industrial zones encompass 90 percent of the inventory area, and employment zones 8 percent. General Employment zones are included because they emphasize industrial and industrially related uses, while allowing a somewhat broader mix of land uses. An exception was made to the inventory area methodology concerning about 600 acres of publicly owned open space (the former St. Johns landfill and nearby wetlands) in the Smith and Bybee Lakes area of the Rivergate District. These taxlots each have a combination of open space and industrial zoning, but they are not included in the inventory area, since they are not expected to become available for industrial development in the foreseeable future.

Sites

The basic geographical units used to analyze industrial land in the atlas are sites, which are linked to descriptive data about the underlying land, such as the businesses located there or the portion that is either vacant or in the 100-year floodplain. The term "site" here refers to contiguous taxlots that function and are controlled as a single development property and are generally held in single ownership. The following steps were used to define sites.

1. **Combine contiguous taxlots under single ownership.**

Taxlots were used as a starting point to identify properties, drawing from the City of Portland's Corporate Geographical Information System database of county assessment and taxation (A&T) records from February 2003. However, many properties include multiple taxlots that have no relation to the development pattern or to how the owner might reconfigure the property in the future. To more accurately describe the characteristics and developability of functioning properties, contiguous property ownership is used instead of taxlots to represent sites. A modified owner field was created, which was a simplified version of the A&T owner field, to standardize owner names. Adjustments were made for small inconsistencies in the data entry of these names, such as abbreviations and joint names in reverse order. The taxlots were dissolved on this modified owner name to create sites defined by adjacency and common ownership. Rights-of-way (either street or railroad) were also used as site boundaries, such that common ownership on both sides of a street were separated into two sites.

2. **Combine sites that function as a single development property.**

Aerial photos were examined to identify draft site boundaries that bisect structures or other features that appear to be part of the development pattern of single sites. Then the following steps were taken that resulted in combining nearly all of these sites. Adjacent sites were combined if one is owned by a company and the other is held by an owner of that company, based on Oregon Secretary of State records. Generally, privately owned sites less than 1,000 square feet were merged with the adjacent larger site if it appeared to function as part of the larger site. Sites with different owner names but clearly used as a single development property were combined, removing site boundaries that bisect structures or parking lots or other exterior uses that function as part of the property, based on aerial photos and field investigation. Parts of single taxlots that are split by waterways primarily along the Columbia Slough are considered single sites. Sites that are under the same ownership and separated by street rights-of-way were identified for possible future reference but were not combined. The site boundaries of Port of Portland properties, including public terminals, right-of-way, leases, and open spaces, were adjusted based on consultation with Port planning staff. Adjacent Port-owned taxlots were generally combined into single sites (e.g., portions of Terminal 6), except that the different large functional areas of the 2,700-acre airport complex described in the Airport Master Plan were separated into distinct sites, as were taxlots used primarily or entirely as open space.

3. **Remove right-of-way and undevelopable fragment sites from the inventory area.**

In most cases, but not all, A&T data excludes street and rail rights-of-way from taxlots. To be more consistent in excluding right-of-way, aerial photos were examined to identify taxlots that function as rail or street right-of-way. Waterfront edge sites that are under separate ownership but appear too narrow to develop were also identified. Then various steps were taken that resulted in removing most of these fragment sites from the inventory area. Publicly owned sites less than 1,000 square feet, which typically function as parts of right-of-way, were removed. Oblong taxlots were removed if the area divided by perimeter was less than eight, identifying sites that are too narrow to be developable and typically function as right-of-way or waterfront edge parcels. Taxlots were removed if occupied by rail lines and owned by railroads or the Port of Portland, except that rail yards and taxlots that widen out into developable property were retained. Railroad-owned properties not occupied by rail lines were also retained. Submerged portions of sites were excluded, based on aerial photos taken in July when the river and stream level was approximate to the average low water line.

Facility Types

Facility types are the basic site attribute used in the atlas to map the land use patterns of industrial districts and to analyze industrial sectors by their use of land and their site characteristics. A facility type is identified for each site, classifying it by the industry of its occupant or by its primary use. In most cases, facility type is determined by the business

establishment(s) on the site. The methodology for identifying facility types is described below.

1. Develop a framework for classifying facility types in industrial districts

The North American Industrial Classification System (NAICS) groups establishments into industries according to similarity in the processes they use to produce goods or services. The framework used in the atlas to classify sites by facility type (shown in the matrix below) is equivalent to the NAICS classification of employment by industry sector. For example, general industrial facilities in the atlas correspond to the production and raw materials sectors in NAICS (manufacturing, construction, and utilities); distribution facilities correspond to distribution sectors (wholesale and transportation); and service facilities to service sectors. However, the Standard Industrial Classification (SIC) equivalent of NAICS sectors were used in identifying facility types, because the primary data source available classified establishments by SIC rather than NAICS codes. Service facilities are separated into industrial and non-industrial categories, to identify types of services that are more widely present in Portland's industrial districts. Multi-tenant facilities, which often have an interchangeable mix of uses, are distinguished as a separate facility type. Multi-tenant facilities are identified by the presence of two or more employers on a site. The real estate industry's "flex space" category of industrial construction is generally a subset of the "four or more tenants" facility type that is typically further distinguished by particular tenant-mix patterns (e.g., tech-flex, warehouse showrooms) and attractive physical design. No facility type is identified for unoccupied sites, those that may be developed but have no current tenant using the site. A "heavy industrial" designation is applied across a range of facility types to sites with large-scale industrial operations or rail, runway, or harbor use. These heavy industrial facilities may also have objectionable impacts and specific site needs that limit their location options.

2. Assign a facility type to each occupied site.

Steps were taken generally in the following order. First, freight terminal sites were assigned, regardless of the employers located there, since terminal operations are typically the primary function of these large sites. Second, facility types were assigned to sites based on the employers located there, drawing from Inside Prospects data. Third, residential facilities were identified, based on residential zoning or residential structures identified by assessment and taxation data. Fourth, sites in public and utility ownership not addressed in the previous steps were assigned to the corresponding public and utility facility types. Employment data did not fully report the extent of these facilities across the city. Fifth, upon field inspection, the previous steps did not provide a complete account of occupied sites, particularly of employers with multiple sites, so InfoUSA employment data (2003) and field inspection (2004) were used as supplemental data sources, focusing on sites not previously assigned to facility types. The covered employment data (ES202) from the Oregon Employment Department used for employment analysis could not be used for mapping, due to employer confidentiality requirements. Sixth, multiple-employer sites with a primary occupant were reclassified to the facility type of that occupant. Primary occupants were identified by owner occupancy or having visibly primary land occupants determined by field inspection, which focused on multiple-employer sites larger than 10 acres.

FACILITY TYPE	CRITERIA TO DETERMINE FACILITY TYPE (SIC CODES IN PARENTHESES) OR ATTRIBUTE
General Industrial	
Manufacturing	Manufacturing (20-39) employer.
Utilities	Utility (48-49) employer or unoccupied site in utility ownership.
Construction	Construction (15-17) employer.
Warehouse and Distribution	
Freight Terminal	Rail yard; airport runway and terminal sites; marine terminal sites (distribution facilities for handling , or truck terminal (42) on sites with 50,000 or more square feet of structure area.
Other Transportation	Transportation (40-47) employer.
Wholesale trade	Wholesale (50-51) employer.
Multi-Tenant	
[primary occupant]	Multiple-employer sites with a primary occupant were identified and classified by the facility type of that occupant. Primary occupants include owner occupants and visibly primary land occupants determined by field inspection of sites generally larger than 10 acres.
2-3 tenants	2-3 employers on site, except primary occupant sites.
4 or more tenants	4 or more employers on site, except primary occupant sites.
Industrial Services	
Public	Government (90s) employer or unoccupied site in public ownership.
Rental & Maintenance	Repair (753, 76), equipment rental (735), laundry and garment services (721) or building maintenance (734) employer.
Non-Industrial	
Retail	Retail (52-59) employer
Other services	Services (60-89) employer, except for industrial services.
Residential	Residential use in A&T data or residential zone.
Unoccupied	
Unoccupied sites	No identified employers, except for public or utility ownership or residential site.
Selected Facility Attributes	
Heavy Industrial	Sites (except multi-tenant sites) that meet any of the following criteria: freight terminal facility; 100,000 or more square feet in structure footprint area; ten or more acres in outdoor impervious area; marine loading or moorage structure; active rail spur visible in 2003 aerial photography; or airport runway or terminal.
Open Space	Part or all of site not expected to be available for development, including the following: open space, environmental protection, or river natural zones; mitigation sites resulting from wetland fill or habitat development; public drainage facilities; or 10-year floodplain.

Vacant Land Classification

Metro recently quantified the vacant industrial land supply regionwide, to inform policy decisions in 2002 and 2004 that substantially expanded the "urban growth boundary," a regionally set limit on sprawl containing a 20-year land supply for urban growth. In the atlas, refinements were applied to Metro's vacant industrial land analysis focusing on development constraints that are more prevalent in Portland's older, riverfront industrial areas—floodplain, wildlife habitat, and environmental cleanup sites. These refinements are intended to better understand development constraints at the site and district level and facilitate responsive planning and economic development efforts. "Vacant land" here refers to unimproved land as a measure of growth potential, rather than land for sale or lease which varies daily with changes in market conditions. In some cases, vacant land is in active industrial use, such as an unimproved outdoor storage area, but is assumed to be available in the long term for more intensive use. The following steps were used to classify vacant land by development constraints.

1. **Identify vacant land potentially available for private development.**

Metro's 2002 inventory of vacant (unimproved) land identified by aerial photography was used as a starting point, identifying 3,880 acres in Portland's industrial districts. Vacant "open space" totaling 553 acres was deducted, consisting of land in open space (OS), environmental protection (p), and river natural (n) zones; mitigation sites established through wetland fill or environmental zone permitting; Johnson Creek 10-year floodplain; and public drainage facilities. Public drainage easements of the Multnomah County Drainage District were not included, only because GIS mapping of those easements is not currently available. Vacant land in public or utility company ownership was also deducted (413 acres), except for land owned by the Port of Portland, Portland Development Commission, or Bureau of Environmental Services that is expected to be available for private development. The resulting vacant land supply that is potentially available for private development is 2,914 acres.

2. **Identify land constrained by floodplain, wetlands, steep slopes, or significant habitat (except open space) as partly buildable (Tier F).**

Bureau of Planning staff consulted representatives of various organizations to seek advice on how to estimate the developable portion of vacant industrial land in Portland affected by floodplain and significant fish and wildlife habitat, where current regulations generally allow, but limit, development. The organizations included Portland Bureau of Environmental Services, Portland Endangered Species Act Program, Bureau of Development Services, Portland Development Commission, Port of Portland, Metro, Columbia Corridor Association, and Group MacKenzie. Maps were distributed of 61 sites with potentially developable floodplain areas larger than five acres, and a meeting was held in May 2004 focused on discussion of seven of those sites. Drawing from the ideas raised at that meeting, the atlas project staff used the following methods of classifying buildability of vacant floodplain and habitat. First, the open space areas identified in the preceding step identify land not expected to be available for development. Second, updated information on floodplain and vested development projects that have already been permitted, filled, and partially developed are estimated to be buildable. Mapped 100-year floodplain that is impervious (already developed) and shown by City of Portland elevation data to be two feet or more above the base flood elevation is classified as buildable (part of Tier E). The Cascade Station Plan District area (except environmental conservation zones and open spaces) and the permitted and filled floodplain area developed by the Port of Portland in Rivergate (sites northeast of Lombard Street and sites along Leadbetter Road) are classified as buildable (part of Tier E). Third, other land affected by 100-year floodplain, 1996 flood inundation area (Title 3 delineation), wetland (Title 3 delineation), slope exceeding 10 percent, and Metro Goal 5 significant habitat inventory (excluding impact areas) are identified as "partly buildable" (Tier F, 1,102 acres). The portion of Tier F that is buildable is not estimated in the atlas and will depend on evolving regulatory limitations (e.g., development and local implementation of regional Goal 5 habitat protection rules) and how individual development proposals respond to the conditions of particular sites. The "buildable" vacant land supply identified in the atlas is quantified by deducting partly buildable land (Tier F) from the land potentially available for private development calculated in step 1 (i.e., 2,914 acres – 1,102 acres = 1,811 acres rounded off).

3. **Identify the availability and use constraints (Tier A-D) of buildable vacant land.**

The *Regional Industrial Lands Study* (1999) classified vacant, buildable industrial land by tiers of availability and use constraints (Tiers A-D), which Metro later updated. Generally, Tier D is redevelopable land with 10 percent or less site coverage by structures (e.g., farms); Tier C consists of taxlots less than an acre in size or valued above market rate for industrial land; Tier B consists of taxlots larger than two acres that are partially developed, available for lease only, or have access or unstable soil constraints; and Tier A has none of these identified constraints. Metro's identification of Tier A-D land was applied to the universe of "buildable" vacant land identified in the atlas (1,811 acres). Other buildable areas that Metro did not classify in Tiers A-D were added to Tier E, which also includes the vested sites and updated floodplain area described in step 2. Tier E this consists of "other buildable" vacant land identified by the Bureau of Planning, most of which is equivalent to Tier B. The Port of Portland owns 62 percent of Tier E land and manages these sites as a lease-only land bank.

4. **Identify vacant land on sites with environmental cleanup or investigation projects.**

The Oregon Department of Environmental Quality (DEQ) maintains a database of environmental cleanup sites statewide, described as "working information" that may be unconfirmed, outdated, or incomplete. The Bureau of Environmental Services mapped these sites in Portland in collaboration with Bureau of Planning and Portland Development Commission staff, although the contaminated portions of the sites are not mapped. These sites are a starting point for identifying "brownfields," which the U.S. Environmental Protection Agency characterizes as abandoned or underutilized sites where redevelopment is complicated by real or perceived contamination. Potentially, brownfields are vacant or underutilized because of cleanup liability. In most cases, the cleanup and investigation sites identified by DEQ are occupied

and being investigated and cleaned by the owner or another responsible party. In the atlas, vacant land (cleared and unimproved) and lack of occupancy (no current tenant) are identified among cleanup and investigation sites as indicators of potential brownfields. Sites with active cleanup or investigation projects have been identified within each tier of vacant land described above, totaling 1,095 acres of vacant industrial land. However, the vacant portion of those sites may not actually be contaminated or affected by the investigation or cleanup process. Unoccupied, developed land on cleanup and investigation sites is also mapped as an indicator of brownfields.

DATA SOURCES

Data Layer	Source	Date
Sites and Structures		
Impervious Surface	Developed as 10'x10' pixel grid data by Bureau of Planning from June 2002 multi-spectral imaging data.	March 2004
Industrial Districts	District boundaries developed by Bureau of Planning and Portland Development Commission for atlas.	March 2004
Property Values	Developed by Bureau of Planning by aggregating all real property value accounts from Multnomah County Assessment & Taxation data.	March – July 2004
Property for Sale or Lease	CoStar	April 2004
Sites	Developed by Bureau of Planning and Portland Development Commission by aggregating adjacent taxlots with common ownership.	March 2004
Structures	Original building footprints from 1994 photogrammetrics. Updated by Bureau of Planning using 2003 aerial photography.	2004
Structures, 3+ Stories	Fire Bureau data mapped by Portland Development Commission.	2004
Taxlots	Original geography and property data maintained by Multnomah County Assessment & Taxation. Geographic information system (GIS) layer maintained by City of Portland Corporate GIS.	February 2003
Vacant Land	Developed by Metro from 2002 photogrammetrics. Classification into tiers A-F, public and utility sites, and open space by Bureau of Planning.	2002
Land Use and Employment		
Facility types	Inside Prospects (2002), supplemented by InfoUSA (ESRI Biz Data – 2003) and Bureau of Planning field inspection (2004).	2002 - 2004
Industry Mix by Employment	Oregon Employment Department ES 202 compensated employee data on Covered Employment. Monthly estimates are averaged for year. Confidentiality requirements limit use of data that may identify specific employers.	2002
Largest Employers	Inside Prospects	2002
Zoning including Overlays	Developed and maintained by Bureau of Planning.	March 2004
Infrastructure		
Airport Runways	Developed by Bureau of Planning from 2003 aerial photography.	2004
Bus Routes and Frequencies	Developed and maintained by TriMet.	March 2004
Capital Improvement Program (CIP)	Developed by individual bureaus for citywide Capital Improvement Program.	2003-2004
Freeway Ramps	From regional street centerline maintained by Portland Office of Transportation and Metro.	March 2004
Freight Projects	Developed by Portland Office of Transportation for the Transportation System Plan.	December 2002
Proximity to transportation infrastructure	Developed by Bureau of Planning from the straight-line distance from the GIS-determined centroid of each site to the nearest infrastructure by 50-foot increments.	March 2004
Railroads	Developed by Metro, registered to taxlots.	1995
Sewer Collectors	Developed and maintained by Portland Bureau of Environmental Services.	2003
Truck Routes	Developed by Portland Office of Transportation for the Transportation System Plan.	December 2002
Environmental Constraints		
10 Percent Slope	Developed as 10'x10' pixel grid data by Bureau of Planning from 1994 photogrammetric topographic data.	2004
100 Year Floodplain	Developed by Bureau of Environmental Services for modeling purposes.	2003
Goal 5 Significant Habitat	Inventory by Metro of significant fish and wildlife habitat resources for Goal 5 program. Impact areas are not included.	May 2004
Potential Cleanup Sites	Environmental Cleanup Site Information (ECSI) data developed by Oregon Department of Environmental Quality. Modified for mapping by Bureau of Environmental Services and Bureau of Planning.	2004
Title 3 Flood Inundation	Originally developed by the U.S. Army Corps of Engineers from 1996 aerial photography. Modified by Metro for Title 3.	
Wetlands	Metro Title 3 Wetlands Inventory	

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GLOSSARY

Capital Improvements Plan, City of Portland
A 10-year list of prioritized capital improvements adopted by City Council for planning and budgeting purposes. Also called Capital Improvements Program.

Cleanup and Investigation Sites
Sites (as defined in the atlas) where the Oregon Department of Environmental Quality (DEQ) identifies one or more cleanup or investigation projects in its published Environmental Cleanup Site Information database. Cleanup and investigation sites identified as unoccupied or vacant land in the atlas do not include sites where DEQ has issued a "No Further Action" required letter.

Developed Area
All site area except identified vacant (unimproved) land and open space (land not generally available for development).

District Specialty Industries
Specialty industries (3-digit NAICS level) concentrated in the district are identified as those having the highest percentage share of their citywide employment located within the district.

Facility Types
A framework for classifying (see page 16) and mapping (see page 32) each site by the industry of its current occupant or by its primary use. Steps taken to identify facility types are summarized above in this chapter.

Multimodal Freight Access
Sites with access to the airport runway system, a railroad (main line or spur), or the Portland Harbor deepwater channel are identified by adjacency, although the facilities on site might not use these freight transportation modes.

Heavy Industrial Facilities
A freight terminal or other large-scale industrial facility identified by either 100,000 or more square feet in structure footprint area, ten or more acres in outdoor impervious area, marine loading or moorage structures, or an active rail spur on site.

High Land Value Sites
Sites with land value exceeding typical industrial land market prices in the metro area, identified as $6 or more per square foot of developed area based on taxlot market value estimates of Multnomah County Assessment and Taxation.

Industrial Districts
Geographically proximate areas of land committed to future industrial or general employment use in the *Portland Zoning Code* or *Comprehensive Plan.*

NAICS
The North American Industrial Classification System is the current standard system used to identify groups of industries.

Occupied Site
A site currently occupied by a tenant, identified by employment data and supplemented by limited field investigation.

Open Space
Land that is generally not available for development, identified by certain zones (open space, environmental protection, and river natural zones), mitigation sites established through development projects on regulated wetlands or habitat area, public drainage facilities, and the 10-year Johnson Creek floodplain.

Outdoor Impervious Area
Outdoor areas are typically paved or graveled and used for storage, vehicle maneuvering area, or parking. They are identified as all impervious area minus structure footprints. Impervious area is identified from 2002 multispectral imaging data.

Property Value
Market value of land and all real improvements are identified from Multnomah County Assessment and Taxation estimates in 2004. All real value accounts are included for each taxlot.

Site
Contiguous taxlots that function and are controlled as a single development property and are generally held in single ownership. Steps taken to identify sites are summarized above in this chapter.

Structure Area
Footprint of buildings and other structures (e.g., tanks, silos) were identified from 1994 photogrametrics updated by 2003 aerial photography.

Vacant Land
Vacant land refers to unimproved land as a measure of growth potential, rather than land for sale or lease which varies daily with changes in market conditions. Vacant land was identified by Metro in 2002 from aerial photography. In some cases, vacant land is in active industrial use, such as an unimproved outdoor storage area, which is assumed to be available in the long term for more intensive use.

Vacant Land, Buildable Private

Buildable vacant land that is potentially available for private development, identified as all vacant land minus the following: open space (land that is generally not available for development); public and utility ownership with some exceptions; and partly buildable (Tier F) vacant land affected by specific environmental constraints. Steps taken to classify vacant land are described in more detail earlier in this chapter.

Vacant Land, Partly Buildable (Tier F)

Vacant land potentially available for private development (all vacant land minus open space and public and utility sites with exceptions) where development is generally allowed but limited by specific environmental constraints. Steps taken to classify vacant land are described in more detail earlier in this chapter.

Zones

The *Portland Zoning Code* regulates the types of new land uses allowed and some aspects of development, varying by zone across the city. The zoning code is among the tools used to implement the land use patterns recommended in the *Comprehensive Plan*.

Acknowledgements

Mayor Vera Katz, Commissioner-in-Charge

Portland Bureau of Planning
Gil Kelley, Planning Director
Joe Zehnder, Principal Planner

Project Staff
Steve Kountz, Senior Economic Planner, Project Manager
Gary Odenthal, Technical Services Manager
Bronwyn Buckle, Community Service Aide
Lori Hill, Graphic Design

Portland Development Commission
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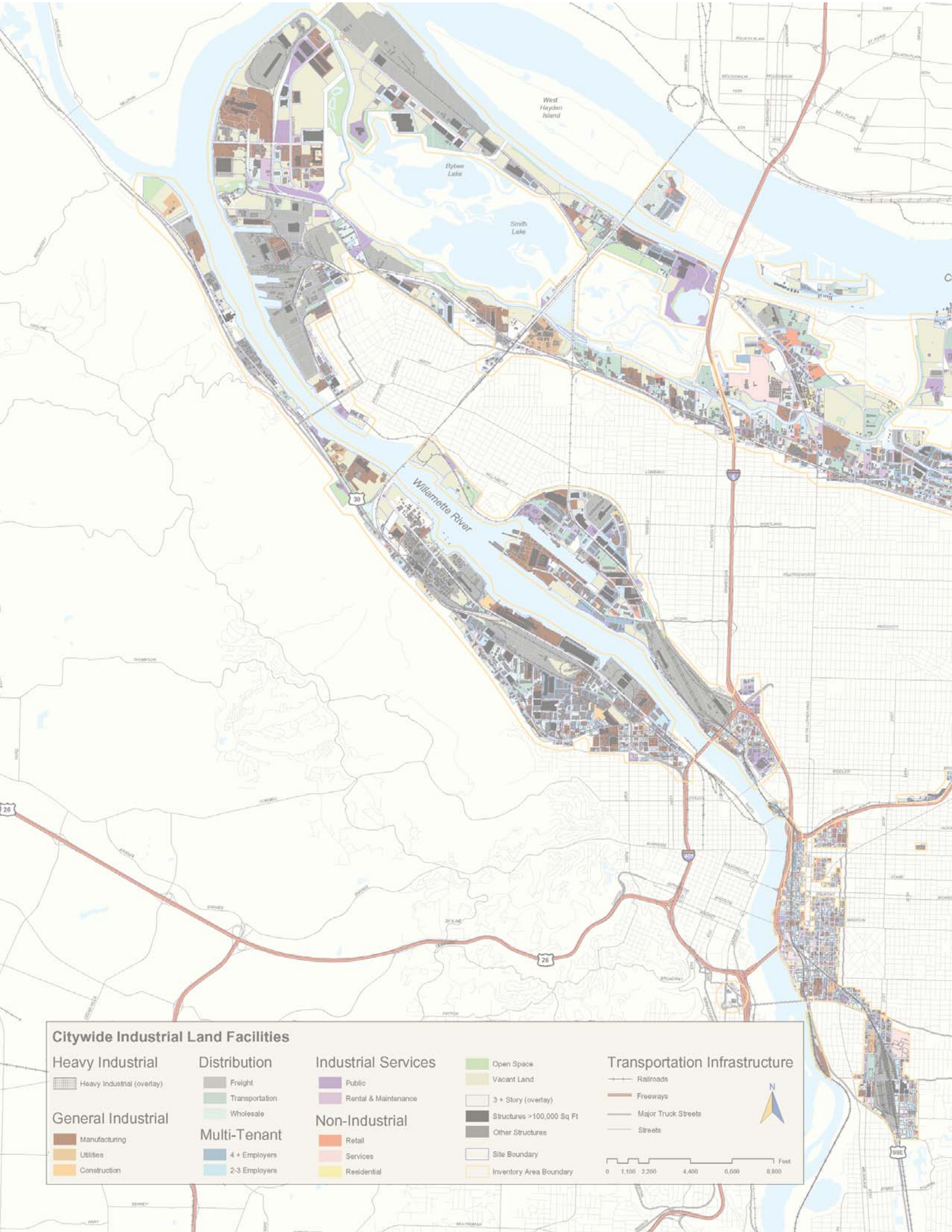
Port of Portland
Portland Development Commission
Bureau of Planning
Naito Corporation

Union Pacific's Albina Yard is the busiest rail yard in the metro area and one of the anchors of Portland's inner city industrial districts.


West Hayden Island
Bybee Lake
Smith Lake
Willamette River
30
5
405
26
99E
Citywide Industrial Land Facilities
Heavy Industrial
Heavy Industrial (overlay)
General Industrial
Manufacturing
Utilities
Construction
Distribution
Freight
Transportation
Wholesale
Multi-Tenant
4 + Employers
2-3 Employers
Industrial Services
Public
Rental & Maintenance
Non-Industrial
Retail
Services
Residential
Open Space
Vacant Land
3 + Story (overlay)
Structures >100,000 Sq Ft
Other Structures
Site Boundary
Inventory Area Boundary
Transportation Infrastructure
Railroads
Freeways
Major Truck Streets
Streets
N
0 1,100 2,200 4,400 6,600 8,800
Feet