

# **AN INDUSTRIAL LAND & MARKET STRATEGY**

**EXECUTIVE SUMMARY** **FOR THE CITY OF PHILADELPHIA**  
SEPTEMBER 2010

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GANTRY CRANE, PACKER AVENUE MARINE TERMINAL

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AN INDUSTRIAL MARKET AND LAND USE STRATEGY FOR THE CITY OF PHILADELPHIA  
SEPTEMBER 2010

PREPARED FOR  
PHILADELPHIA INDUSTRIAL DEVELOPMENT CORPORATION

IN COLLABORATION WITH  
PHILADELPHIA CITY PLANNING COMMISSION  
PHILADELPHIA DEPARTMENT OF COMMERCE

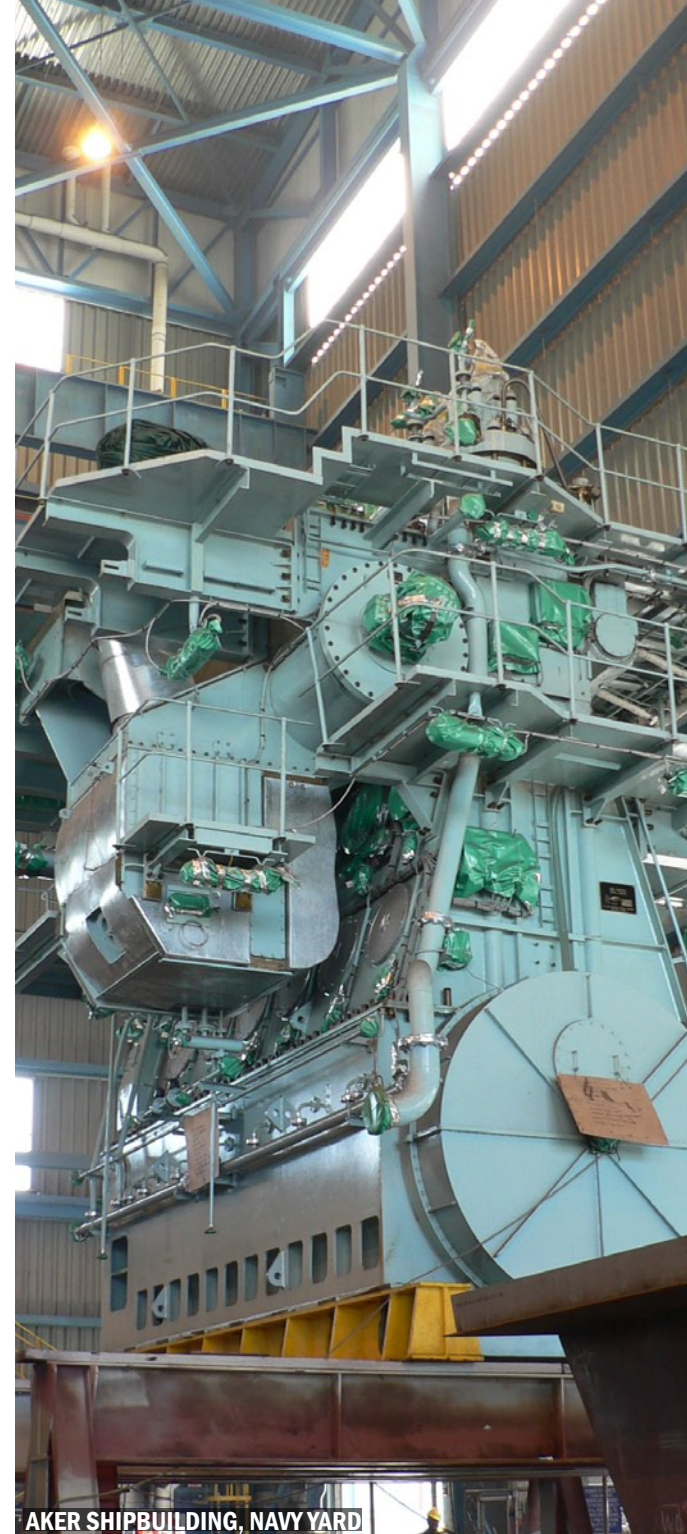
# EXECUTIVE SUMMARY

## INTRODUCTION

Philadelphia's long-term economic health depends in part on its ability to attract, accommodate, and retain industry as part of a balanced and diversified economy. Today, production, distribution, repair, and other industrial activities continue to be critical components of the City's economic base, accounting for over 100,000 jobs citywide and more than \$322 million annually in direct tax revenue to the City's coffers.

The long-term viability of industry in the City is dependent on the availability of sites and conditions that will encourage investment and allow industry to operate efficiently and profitably. Today, Philadelphia's inventory of marketable sites is both limited and constrained. Large tracts of industrial land have been rezoned and zoning variances have been granted in response to residential and commercial market pressure. With increased demand from non-industrial uses, building and land prices have increased, often pricing out industries that cannot afford to match the prices paid by residential or retail developers. At the same time, seismic shifts in the demand for industrial real estate have occurred over the past few decades; investors and users are driven to larger parcel sizes and flexible, newer one-story buildings, while smaller multi-floor, loft structures have become largely obsolete.

In light of recent efforts to update both the City's zoning code and comprehensive plan, constraints in the supply of Philadelphia's industrial land, changes in demand for industrial space and increasing pressure on industrially-zoned land from other uses represent a clear opportunity to provide policy direction for industrial land use in Philadelphia. To this end, the Philadelphia Industrial Development Corporation, with the support of the Philadelphia Department of Commerce and the Philadelphia City Planning Commission, has sponsored this study with the goals of expanding and retaining industry in the City, protecting the employment opportunities and tax revenues generated by the sector, and rationalizing the City's supply of industrially-zoned land to meet the projected needs of Philadelphia businesses.



AKER SHIPBUILDING, NAVY YARD





**AERIAL VIEW OF THE NAVY YARD**  
SOURCE: PICTOMETRY INTERNATIONAL 2009 AND CITY OF PHILADELPHIA



# THE CURRENT STATE OF THE PHILADELPHIA INDUSTRIAL SECTOR

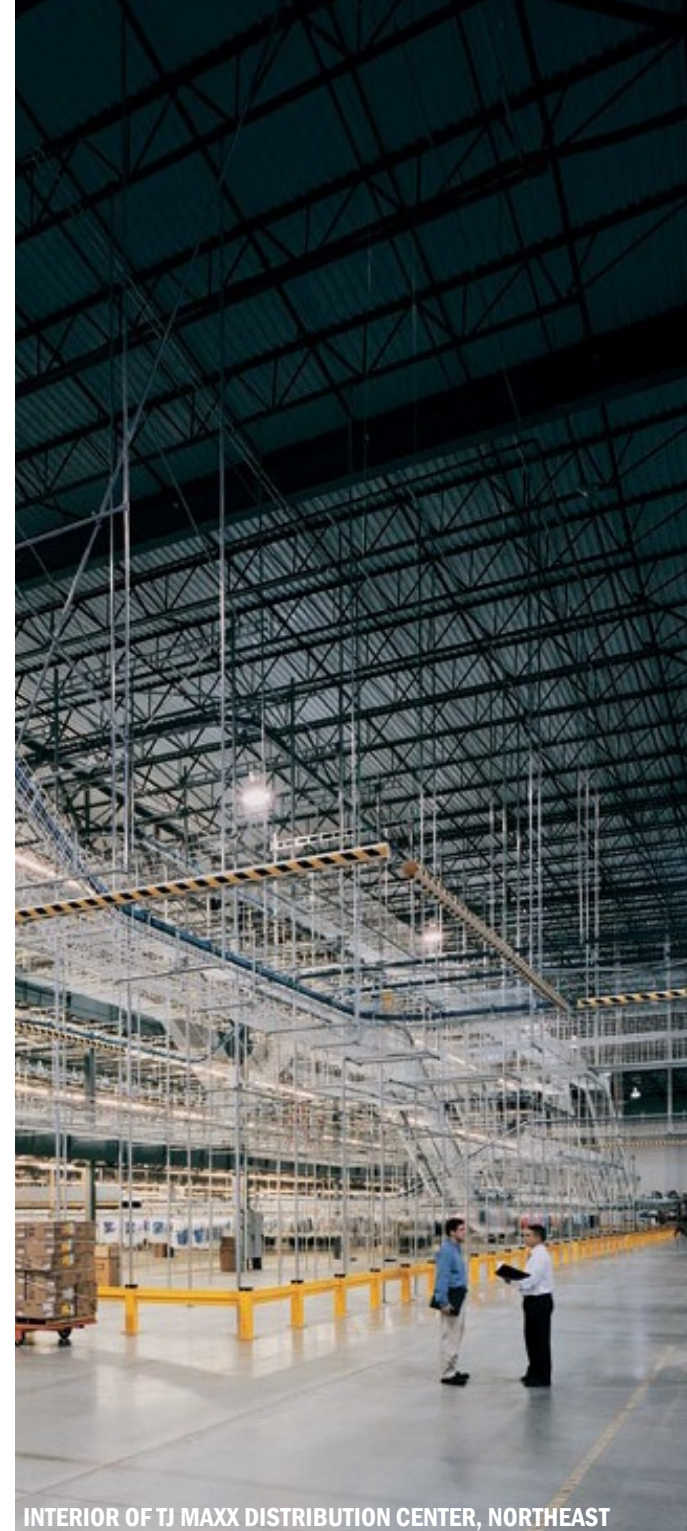
## MODERN INDUSTRY DEFINED - PRODUCTION, DISTRIBUTION AND REPAIR

The definition of industry has broadened since Philadelphia's days as the Workshop of the World. Due to a globalized competitive environment, domestic industrial activity today is as likely to involve the storage and transport of products on their way to the final consumer as it is manufacturing. *A modern definition of industry describes a range of activities centered on the production, distribution, and repair of goods and materials.* Several other cities that have completed similar studies have used the term "PDR" – production, distribution, and repair – rather than "industrial" to more accurately characterize a sector that can still conjure images of Victorian-era smokestack industry.

Modern productive industrial land may be occupied by laboratories, flex space, warehouses and distribution centers, or purpose-built manufacturing buildings. Concerns about energy costs and environmental impacts have increased demand for high-performance, low-impact sites and structures.

## PHILADELPHIA'S VIBRANT INDUSTRIAL ECONOMY

Philadelphia's industrial economy is vibrant, productive, and significant. From pharmaceutical testing at The Navy Yard to helicopter assembly in the Northeast, industrial jobs account for approximately *20 percent of the City's total employment* – 104,300 people. These jobs offer strong wages and range from highly-skilled, technical positions to entry-level apprenticeships and career-path positions for unskilled and semi-skilled workers. *The average wage in the sector is more than \$50,000*, a family-supporting living wage that typically includes a benefits package. Only 20 percent of Philadelphians have college degrees; for the large portion of the City's workforce that experiences barriers to employment due to low education levels, less specialized skills sets, language barriers, or lack of mobility, jobs in the industrial sector can offer a route out of poverty. The sector's annual payroll is over \$5 billion. It not only employs people directly in industrial businesses, but also supports employment and economic growth for Philadelphia's hospitals, universities, tourism, and other key economic sectors. The industrial sector contributes *more than \$322 million to the City's coffers* in direct taxes annually, amounting to nearly 15 percent of the City's annual tax revenue. A well-diversified citywide economy – one that includes a vibrant industrial sector – also dramatically enhances a city's ability to withstand economic crises.



INTERIOR OF TJ MAXX DISTRIBUTION CENTER, NORTHEAST





**AERIAL VIEW OF EASTWICK A INDUSTRIAL PARK IN SOUTHWEST PHILADELPHIA**

SOURCE: PICTOMETRY INTERNATIONAL 2009, THE CITY OF PHILADELPHIA



# INDUSTRIAL MARKET DEMAND: THE FUTURE OF INDUSTRY IN PHILADELPHIA

*With a focused strategy, Philadelphia has an opportunity to add 22,000 industrial jobs over the next 20 years*

## THE FOUNDATIONS & CHALLENGES OF THE INDUSTRIAL SECTOR

The City's economy was founded upon the port and those manufacturers who utilized the City's advantages as a center of rail and water transport. Today, Philadelphia's industrial advantages and attributes have shifted. Several strengths complement and support the industrial base, including:

- Local access to a workforce well suited for industrial employment
- Strong institutional assets in key sectors like education and health
- An advantageous location at the center of the Northeastern megaregion with regional access to a large consumer market
- A growing commercial and passenger airport within city limits with unusually close proximity

However, these strengths are balanced against several weaknesses that must be addressed going forward, including:

- Large inventory of poorly-situated and configured buildings not well suited for modern industrial users
- Generally low educational attainment for higher skilled industrial positions
- Job training focused on older industries and skills
- A relatively high cost structure

## MARKET OPPORTUNITIES FOR FUTURE INDUSTRIAL GROWTH

Philadelphia's unique attributes, as summarized above, provide a foundation for understanding the

City's regional and national competitiveness and its ability to target, attract, and retain specific industrial clusters and sectors. Clusters are geographically proximate groups of interconnected companies and associated institutions in a particular field, including product producers, service providers, suppliers, universities, and trade associations. In order to identify the clusters that could serve as engines for industrial employment in Philadelphia, Initiative for a Competitive Inner City (ICIC) analyzed the performance of 59 clusters currently present in Philadelphia. Weak and underperforming clusters were removed and subsequently, those clusters with the greatest opportunities for retention and attraction were aggregated into the final list of clusters and grouped as one of three super-clusters:

### TRADITIONAL MANUFACTURING

Apparel, Building Fixtures & Equipment, Construction Housing & Real Estate, Publishing & Printing, Processed Food and Metal Fabrication

### ADVANCED MANUFACTURING

Biopharmaceuticals, Energy, and Medical Devices

### TRANSPORTATION

Transportation and Wholesale

In all, the target clusters represent 64 percent of industrial employment in Philadelphia. If the City of Philadelphia develops and implements a focused strategy around traditional manufacturing, advanced manufacturing, and transportation and logistics, there is an opportunity to add nearly 22,000 industrial jobs in Philadelphia over the next twenty years. In order to accommodate these new jobs, the City of Philadelphia must identify 2,400 acres of land suitable for industrial development.







**AERIAL VIEW OF FORMER BUDD COMPANY COMPLEX IN HUNTING PARK WEST**  
SOURCE: PICTOMETRY INTERNATIONAL 2009, THE CITY OF PHILADELPHIA



# INDUSTRIAL LAND SUPPLY: LAND USE & REAL ESTATE

*Philadelphia's current inventory of industrially-zoned land suitable for future development is limited and constrained – Philadelphia has only 2,445 acres, a figure that includes completely vacant land and buildings, partially vacant land and buildings, land available on the marketplace, and underutilized land.*

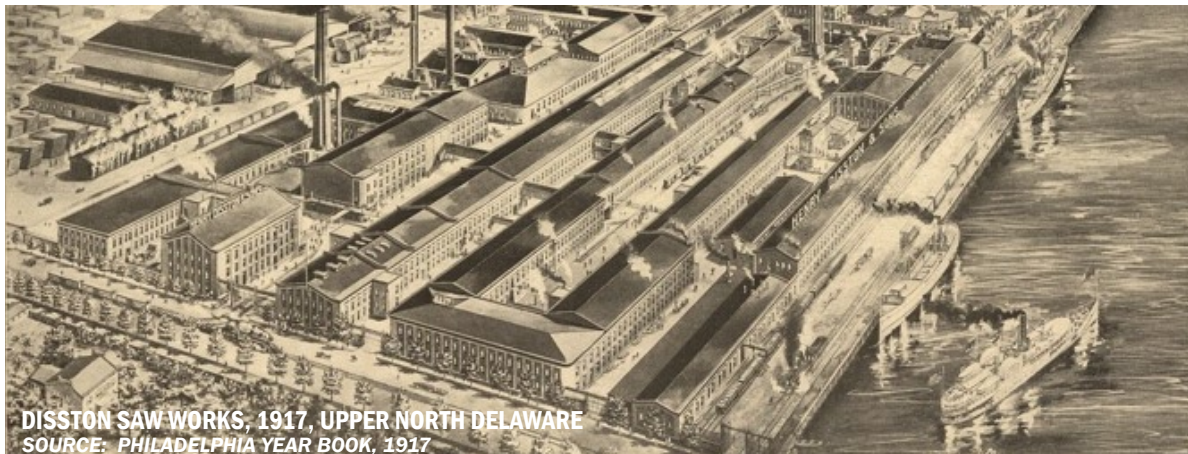
## HISTORIC PERSPECTIVE OF LAND & REAL ESTATE

In the late 1800's and the early 20th Century, multistory loft factories were built in tightly knit urban manufacturing corridors along the Delaware River waterfront and interior rail lines. The factories sparked the development of dense residential neighborhoods, from which a workforce arrived by foot or streetcar. Industrial processes in multistory buildings typically utilized “gravity-flow” production, whereby the manufacturing of an item began on the top floor, continued on lower floors, and was transported off site via the rail siding alongside the building.

The one-story industrial building typology was popularized by Henry Ford's 1913 introduction of the assembly line and, in subsequent decades, the emergence of truck transportation as the primary

means of transportation for both raw materials and finished goods. Industrial businesses increasingly found value in relocating from their urban lofts to one-story facilities built on inexpensive land with convenient road access, off-street truck staging, and employee parking. The growing demand for single-story facilities naturally favored suburban areas over older urban districts.

In 1958, the Philadelphia Industrial Development Corporation (PIDC) was formed to slow the migration of industrial companies to the suburbs. PIDC transformed undeveloped land around the City's periphery into suburban-style industrial parks, acquiring and transacting more than 2,600 acres over fifty years. Despite these efforts, the largely obsolete physical legacy of the Workshop of the World endures, lying visibly fallow along the Amtrak and regional rail corridors and perpetuating the falsehood that Philadelphia is a post-industrial city.



DISSTON SAW WORKS, 1917, UPPER NORTH DELAWARE  
SOURCE: PHILADELPHIA YEAR BOOK, 1917



ATWATER KENT RADIO FACTORY, 1925, HUNTING PARK WEST  
SOURCE: LIBRARY OF CONGRESS



# LAND AND REAL ESTATE REQUIREMENTS OF MODERN INDUSTRIAL BUSINESSES

The private real estate market categorizes modern tradable industrial structures into three product types:

## FLEX

The most common speculative industrial development, adaptable to the needs of a variety of industrial users, including ancillary office space

## PURPOSE BUILT MANUFACTURING

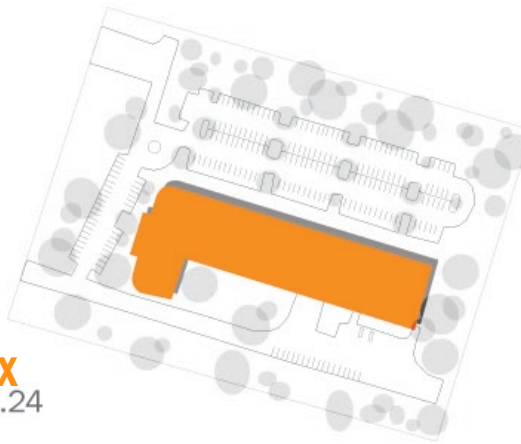
Structures designed to serve a specific manufacturing process

## WAREHOUSE/DISTRIBUTION

Used for the storage and distribution of goods

In addition to modern buildings, industrial businesses typically seek the following requirements:

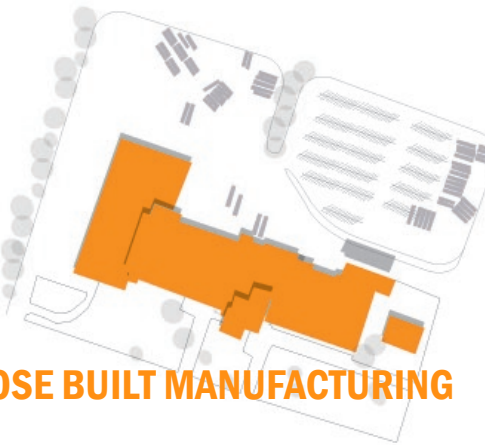
- > **LARGER PARCELS WITH DESIRABLE TOPOGRAPHY**  
Given truck staging, employee parking needs, and stormwater drainage requirements, new industrial development on sites smaller than five acres is rare. Flat sites with good drainage and soil characteristics are necessary for industrial development.
- > **INFRASTRUCTURE ACCESS**  
Proximity to major interstate highway systems is fundamental, since nearly all industrial uses rely on trucking to receive shipments and to distribute goods. Access to freight rail service remains desirable, though most industrial users depend on it far less than trucking. Many industrial businesses also rely on proximity to ports and airports, depending on need.
- > **DISTANCE FROM RESIDENTIAL AREAS**  
Many industrial businesses seek sites where operations will be minimally intrusive to neighboring communities.
- > **WORKFORCE ACCESS**  
Labor-intensive users such as those that occupy flex buildings and manufacturing buildings seek locations that are convenient to an employment base.



**FLEX**  
FAR .24



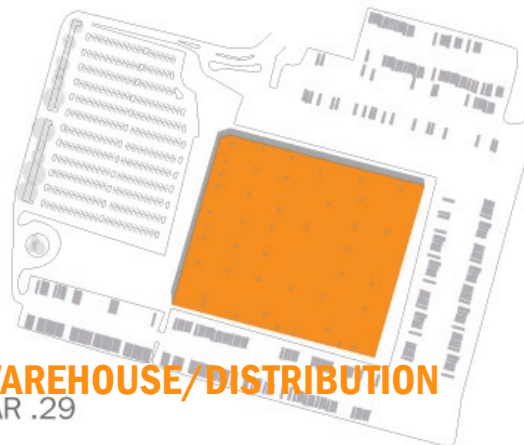
**APTEC LABORATORY SERVICES**



**PURPOSE BUILT MANUFACTURING**  
FAR .27



**KRAFT FOODS**



**WAREHOUSE/DISTRIBUTION**  
FAR .29



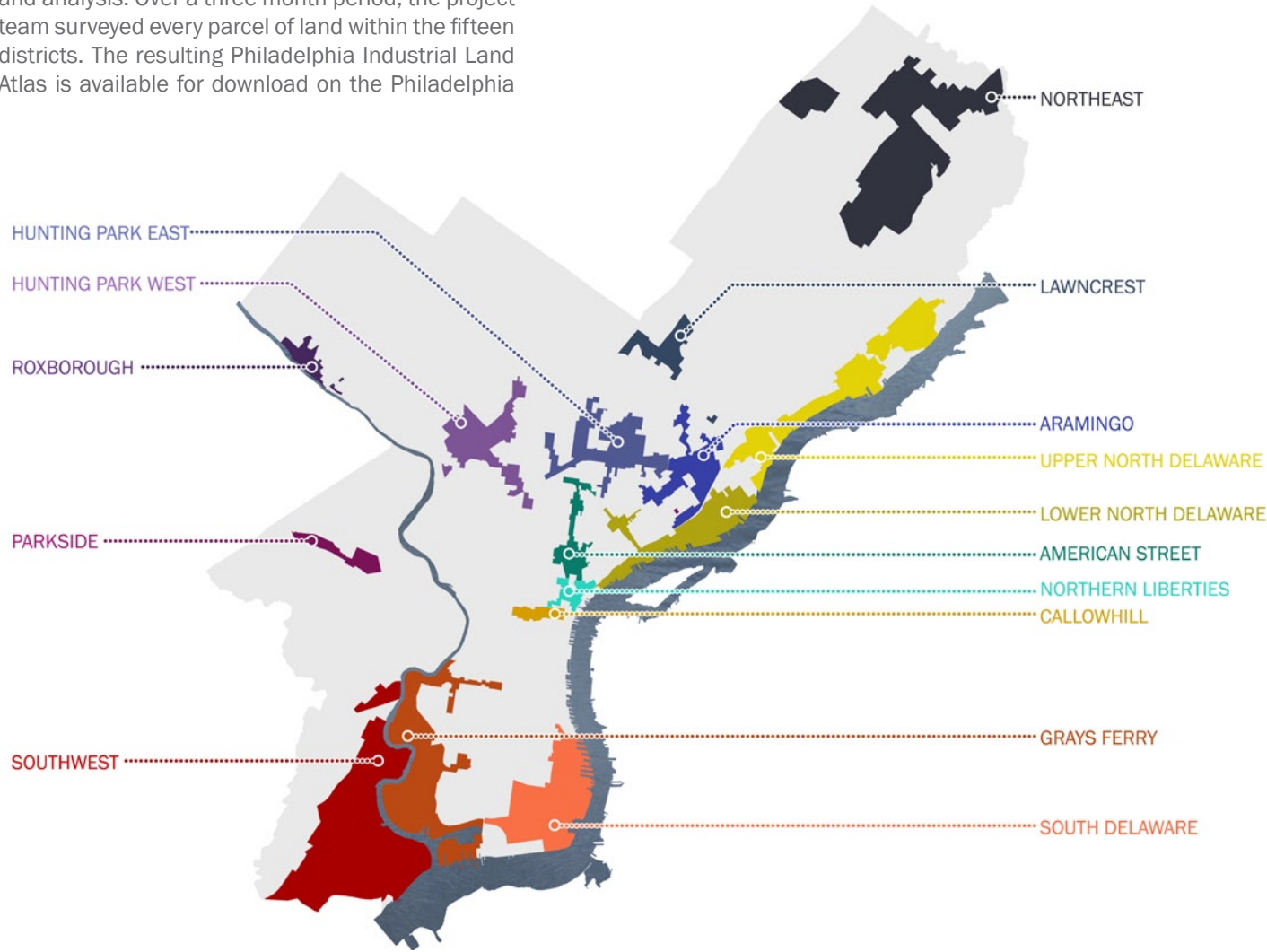
**FED EX GROUND**



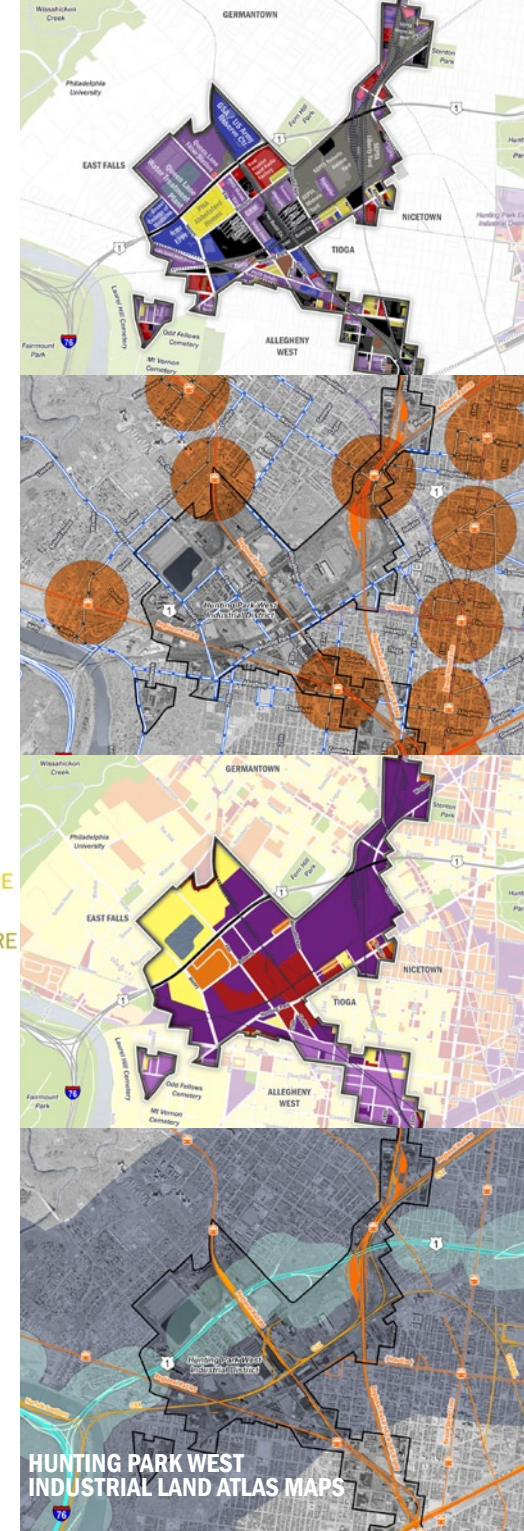
# INDUSTRIAL DISTRICTS AND REAL ESTATE

Today, there are approximately 17,800 acres of industrially-zoned land in the City of Philadelphia, representing nearly 21% of the City's land area. For the purposes of this study, fifteen districts, totaling 15,804 acres, or 89% of Philadelphia's industrially-zoned land, were identified for survey and analysis. Over a three month period, the project team surveyed every parcel of land within the fifteen districts. The resulting Philadelphia Industrial Land Atlas is available for download on the Philadelphia

City Planning Commission website, at [www.philaplanning.org](http://www.philaplanning.org). The Atlas compiles, maps and analyzes information from land use and zoning to vacancy and employment for each of Philadelphia's fifteen surveyed industrial districts.



PHILADELPHIA'S 15 SURVEYED INDUSTRIAL DISTRICTS





The districts span the City of Philadelphia, from the International Airport in the Southwest to the far Northeast, varying widely in size, character, degree of utilization, density, scale, and surrounding uses. However, there are many similarities among various districts with regard to the opportunities and challenges presented by their geographies, development patterns, access and infrastructure. Six groupings, as seen in the graphic at right, allow the districts to be considered at a broader, more functional scale within the context of city and region.

The private real estate market recognizes more than 118 million square feet of industrial space in approximately 2,200 buildings in the City of Philadelphia. The Philadelphia Metropolitan Statistical Area has more than four times the City's total inventory, reflecting not only the massive suburban shift over the last 40 years, but also the fact that Philadelphia is at the center of a vibrant industrial marketplace.

## NORTHEAST SUBURBAN

- \*stable land values
- \*campuses make better neighbors
- \*proximity to diverse labor pool
- \*higher costs, but only marginally higher benefits compared to suburbs
- \*local firm noted deficient sewer capacity
- \*isolated from central city and transit

## DELAWARE WATERFRONT

- \*I-95 adjacent (& buffers res'd'l areas)
- \*several large, vacant parcels remain
- \*astride major utility infrastructure
- \*neighborhoods desire river access
- \*development pressure on land values
- \*numerous choke points coming off I-95

## NORTH PHILADELPHIA URBAN

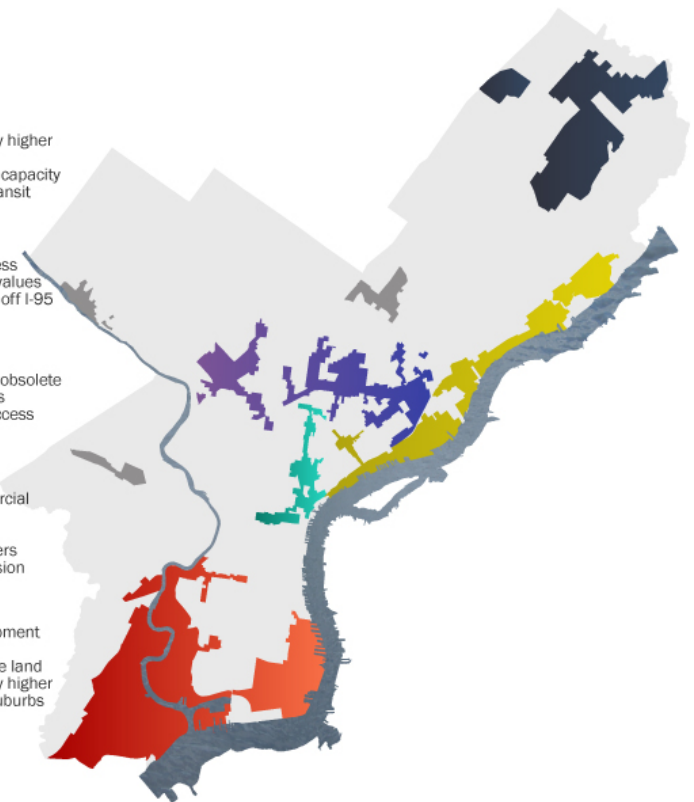
- \*proximity to diverse labor pool
- \*strong legacy of industrial associations
- \*lower industrial rents and land values
- \*bldgs often in poor condition or obsolete
- \*limited parking and truck access
- \*high crime & indirect freeway access

## PHILADELPHIA INNER URBAN

- \*small, low-rent spaces + proximity = hotbed of workshop / artisanal
- \*uniquely close-in industrial property to Center City
- \*increasing residential & commercial pressure
- \*truck circulation difficult
- \*small parcels and multiple owners hinder land assembly and expansion

## SOUTH BY SOUTHWEST WATERFRONT

- \*excellent access: airport, port, freeways
- \*revitalizing node @ Navy Yard
- \*historically industrial land use & development patterns
- \*big box and commercial development eroding available industrial land
- \*much fill or otherwise unsuitable land
- \*higher costs, but only marginally higher benefits compared to adjacent suburbs



## PHILADELPHIA INDUSTRIAL DISTRICTS:

	PARCELS	ACRES	DISTRICT SHARE	AVG INDUSTRIAL PARCEL SIZE (ALL)	50+ ACRE PARCELS	50+ ACRE PARCELS (% OF TOTAL)	AVG INDUSTRIAL BUILDING SIZE (FT²)	AVG INDUSTRIAL BUILDING AGE
<b>NORTHEAST SUBURBAN</b>	<b>420</b>	<b>3,390</b>	<b>21%</b>	<b>11.0</b>	<b>7</b>	<b>38%</b>	<b>78,792</b>	<b>1986</b>
Northeast	420	3,390	21%	11.0	7	38%	78,277	1986
<b>DELAWARE WATERFRONT</b>	<b>1,451</b>	<b>2,361</b>	<b>15%</b>	<b>4.6</b>	<b>10</b>	<b>36%</b>	<b>35,930</b>	<b>1954</b>
Upper North Delaware	732	1,413	9%	3.3	7	32%	44,000	1958
Lower North Delaware	719	948	6%	5.8	3	42%	27,860	1950
<b>NORTH PHILADELPHIA URBAN</b>	<b>6,660</b>	<b>2,074</b>	<b>12%</b>	<b>2.2</b>	<b>2</b>	<b>6%</b>	<b>48,381</b>	<b>1947</b>
Aramingo	2,757	545	3%	1.2	0	0%	29,324	1939
Hunting Park East	2,760	821	5%	1.8	0	0%	44,430	1949
Hunting Park West	1,143	708	4%	3.5	2	17%	71,389	1953
<b>PHILADELPHIA INNER URBAN</b>	<b>4,924</b>	<b>480</b>	<b>4%</b>	<b>0.4</b>	<b>0</b>	<b>0%</b>	<b>17,952</b>	<b>1930</b>
American Street	3,242	253	2%	0.4	0	0%	17,174	1938
Northern Liberties	1,338	113	1%	0.2	0	0%	15,388	1926
Callowhill	344	115	1%	0.5	0	0%	21,294	1926
<b>SOUTH BY SOUTHWEST WATERFRONT</b>	<b>2,104</b>	<b>6,755</b>	<b>43%</b>	<b>14.6</b>	<b>25</b>	<b>59%</b>	<b>80,428</b>	<b>1959</b>
South Delaware	143	1,661	11%	10.9	8	55%	99,904	1974
Grays Ferry	1,428	1,946	12%	13.0	7	72%	72,675	1945
Southwest	533	3,148	20%	20.0	10	54%	68,706	1985*
<b>OTHER</b>	<b>554</b>	<b>744</b>	<b>4%</b>	<b>7.0</b>	<b>2</b>	<b>28%</b>	<b>88,812</b>	<b>1950</b>
Lawncrest	181	380	2%	16.2	2	55%	188,868	1952*
Parkside	290	186	1%	1.3	0	0%	23,610	1950
Roxborough	83	177	1%	3.6	0	0%	53,957	1952*
<b>ALL DISTRICTS</b>	<b>16,113</b>	<b>15,804</b>	<b>100%</b>	<b>5.0</b>	<b>46</b>	<b>41%</b>	<b>47,576</b>	<b>1950</b>

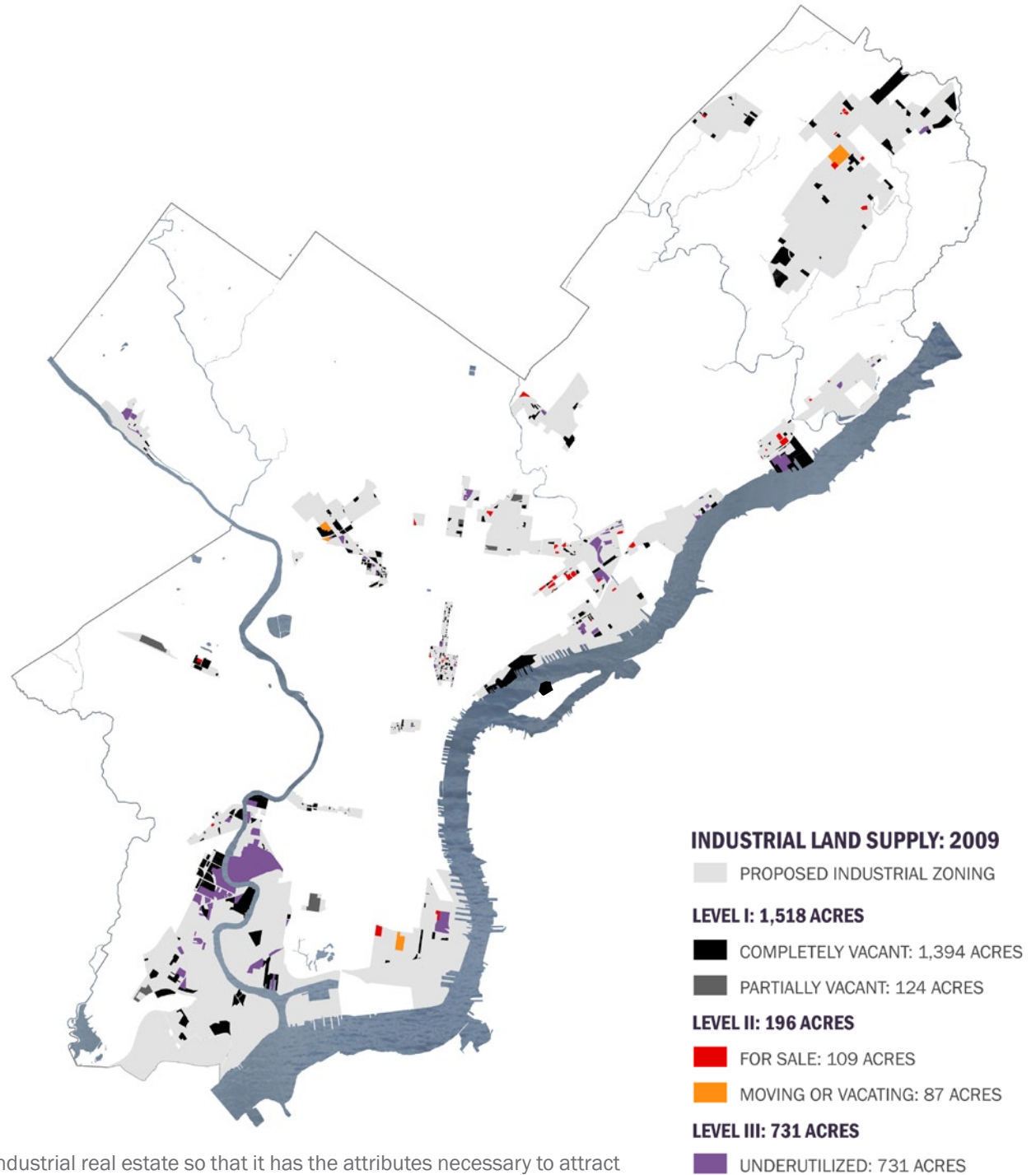


## LAND OPPORTUNITIES FOR FUTURE INDUSTRIAL EXPANSION

Philadelphia's inventory of industrial land for future development is both limited and constrained. The survey identified 2,445 acres of land suitable for future development within Philadelphia's fifteen industrial districts. This figure includes completely vacant land and buildings (1,394 acres), partially vacant land and buildings (124 acres), land available in the marketplace (196 acres), and underutilized land (731 acres). As previously mentioned, we project that Philadelphia will need approximately 2,400 acres of land for future industrial development to accommodate 22,000 new jobs in Philadelphia over the next twenty years. Of course, over time, existing industrial sites will turn over naturally, as factories in good locations age and the sites also become available for redevelopment.

It is important to note that, while land that is suitable for future industrial development exists within Philadelphia, the vast majority of that land is far from shovel-ready. Many areas will need significant infrastructure improvements and extensive environmental remediation. Other areas are tied up because of zoning uncertainty. In order for new industrial development to occur, the market must know that zoning designations are definitive. For example, a waterfront site may have been acquired at an industrial price of \$125,000/acre, but has the potential to be traded at \$300,000-500,000/acre for housing, \$500,000-600,000/acre for retail, or \$1-3 million/acre for a casino should a zoning change occur; the property's viability for future industrial development is compromised because the land owner will hold out for the higher values afforded by commercial zoning. Public intervention is necessary to create zoning certainty and provide catalytic infrastructure improvements or environmental clean-up that stimulate investment.

The goal of these public interventions is to position industrial real estate so that it has the attributes necessary to attract private investment in modern, investment-grade flexible industrial facilities that will be responsive to market demands and ultimately retain their utility and value over time. This represents a shift from Philadelphia's long tradition of purpose-built manufacturing that becomes obsolete due to its limited utility for alternate industrial uses.







LOOKING WEST ACROSS SUNOCO'S PHILADELPHIA REFINERY IN GRAYS FERRY

SOURCE: PICTOMETRY INTERNATIONAL 2009, THE CITY OF PHILADELPHIA



# RECOMMENDATIONS: PLANNING FOR PHILADELPHIA'S INDUSTRIAL FUTURE

*Three broad areas of recommendations were developed aimed at accomodating clean, modern industrial growth in Philadelphia:*

- 1. Zoning for Modern Industry***
- 2. Positioning Industrial Land for Investment***
- 3. Additional Strategies for Retaining & Expanding Industry***

## ZONING FOR MODERN INDUSTRY

Philadelphia's current zoning code is based on 1960's land use patterns, which themselves were a legacy of an antiquated industrial economy. The land uses permitted by the City's current industrial zoning do not account for a modern range of low-impact, high-performance, or mixed-use industrial development. The ongoing work of the Zoning Code Commission and the comprehensive planning process provides Philadelphia with a unique opportunity to formally rationalize its supply of industrial land while updating its classifications to represent twenty-first century patterns of urban industry.

We propose that the ten industrial zoning classifications in Philadelphia's current code should be consolidated into four classifications. The four classifications include a utilities and transportation infrastructure category that would separate critical long-term public infrastructure from private market industrial activity. The remaining three industrial zones classifications include heavy industrial, general industrial, and light industrial.

In addition, two new mixed-use classifications are proposed, reflecting Philadelphia's fine-grained texture and cognizant that, in many places, low-impact industrial uses may intermingle with commercial and residential uses.

## RECOMMENDED ZONING TYPOLOGIES

### HEAVY INDUSTRIAL

USES	Least restrictive - refineries, petroleum tanks & terminals
CHARACTER	LOW FAR. Tanks, pipelines, secure areas
IMPACTS	Most permissive - high noise, odor, vibration, traffic

### GENERAL INDUSTRIAL

USES	Manufacturing, distribution, processing, industrial park
CHARACTER	MID FAR. Mid to large footprint, well-buffered
IMPACTS	Permissive - noise, vibration, odor, hours, traffic

### LIGHT INDUSTRIAL

USES	Light manufacturing, assembly, artisanal fabrication, office, R&D, small wholesale, local distribution
CHARACTER	SMALL FAR. Mid footprint, subdivision of buildings, business / industrial park, workshop; some buffering
IMPACTS	Localized noise, traffic, activity

### INDUSTRIAL COMMERCIAL MIXED USE

USES	Commercially-driven mix of locally-serving quasi-industrial (eg, food wholesale, local fabrication & repair, construction supply), and commercial
CHARACTER	VARIETY IN SCALE & USE. Typically smaller footprint, located along commercial corridors
IMPACTS	Localized noise, traffic, activity

### INDUSTRIAL RESIDENTIAL MIXED USE

USES	Artisanal, creative, workshop, small mfg. & fabrication compatible w/ traditional neighborhoods - residential conversion limited
CHARACTER	SMALL SCALE. Flexible - often adaptive use of existing building stock, garage, workshop
IMPACTS	Minimal

### UTILITIES & TRANSPORTATION

USES	Power generation, water, waste treatment; rail yards, ports, airports
CHARACTER	VARIES. Form follows function
IMPACTS	Fixed impacts - includes odor, traffic, noise, high activity



## POSITIONING INDUSTRIAL LAND FOR INVESTMENT

In addition to updated zoning classifications, industrially-zoned land should be managed with three distinct but complementary industrial policy typologies – Industrial Protection Areas, Industrial Intensification Areas, and Transitioning Areas.

### INDUSTRIAL PROTECTION AREAS

The City has many vibrant, employment-rich industrial districts and corridors. Such areas should be protected and receive regulatory support and market certainty that land use policy will remain industrial. In such cases, Industrial Protection Areas (IPAs) should be created in order to reinforce such areas. The study recommends 4,241 acres for IPA designation. An IPA should:

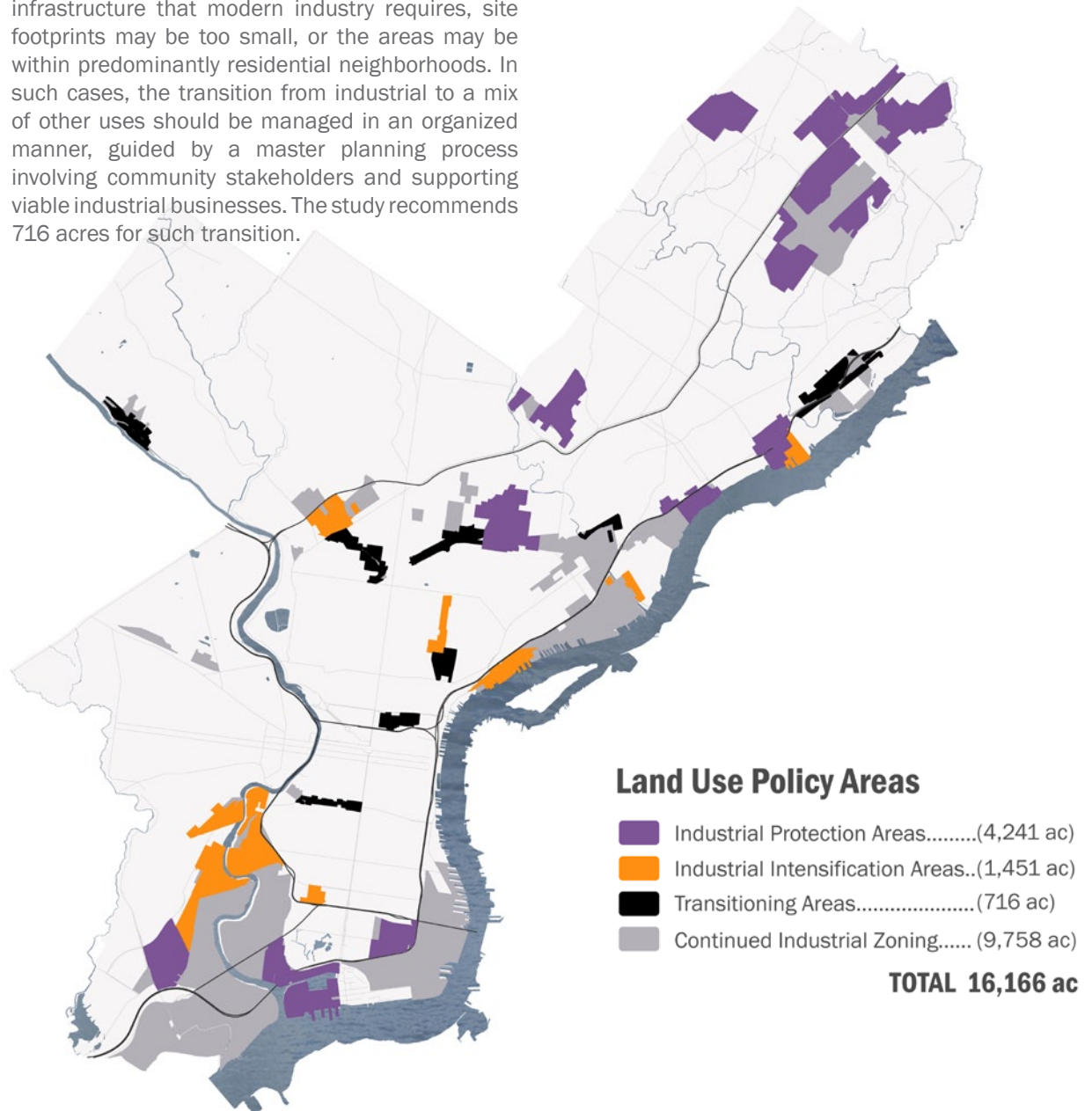
- Prohibit future non-industrial uses by providing regulatory certainty, restricting spot zoning changes or variances in the future
- Identify and coordinate capital and infrastructure needs necessary to ensure long-term economic viability for industrial users
- Provide strong enforcement to disallow land uses inconsistent with industry

### INDUSTRIAL INTENSIFICATION AREAS

There are at least 1,451 acres within existing industrial districts that have the potential to accommodate more dense and productive industrial uses industry. In addition to creating zoning certainty within these Intensification Areas, the public sector should invest in significant planned infrastructure improvements and environmental remediation in order to encourage private investment and job creation. Additionally, these areas should undergo master planning processes to determine the appropriate niche cluster segments; detailed marketing and redevelopment plans should be directed accordingly.

### TRANSITIONING AREAS

*A portion of Philadelphia's industrially-zoned land is not suitable for continued industrial use.* Many facilities within Philadelphia's industrial districts are only marginally viable for modern industry, or are most suitable for smaller, niche industrial activity. These areas may lack the transportation infrastructure that modern industry requires, site footprints may be too small, or the areas may be within predominantly residential neighborhoods. In such cases, the transition from industrial to a mix of other uses should be managed in an organized manner, guided by a master planning process involving community stakeholders and supporting viable industrial businesses. The study recommends 716 acres for such transition.







To demonstrate the opportunity costs of allowing proposed Industrial Intensification Areas to lie fallow, the consultant team was asked to develop conceptual studies of how two key locations might be better positioned for industrial development. These concepts have not been endorsed by the owners.

The Port Richmond railyard site includes 122 acres along the Delaware River and includes vacant Conrail lands and an adjacent vacant property to the South. The site is one of the three largest contiguous industrial development sites in the City. A conceptual industrial campus plan demonstrates that the site could support 1.1 million square feet

of manufacturing, warehouse/distribution, and flex space, *accommodating 2,300 new jobs, \$99 million annually in payroll, and nearly \$10 million annually in tax revenue to the City.* The concept plan includes a 100' setback to allow continuous waterfront trail and public space linked to the rest of the Central Delaware, a progressive approach to stormwater management, and a mix of building types and industrial activities that respond to available infrastructure. Because of its size and location, this site may reasonably support other uses including retail and commercial, however, this concept is intended to illustrate the benefits of redeveloping large, contiguous urban industrial areas.

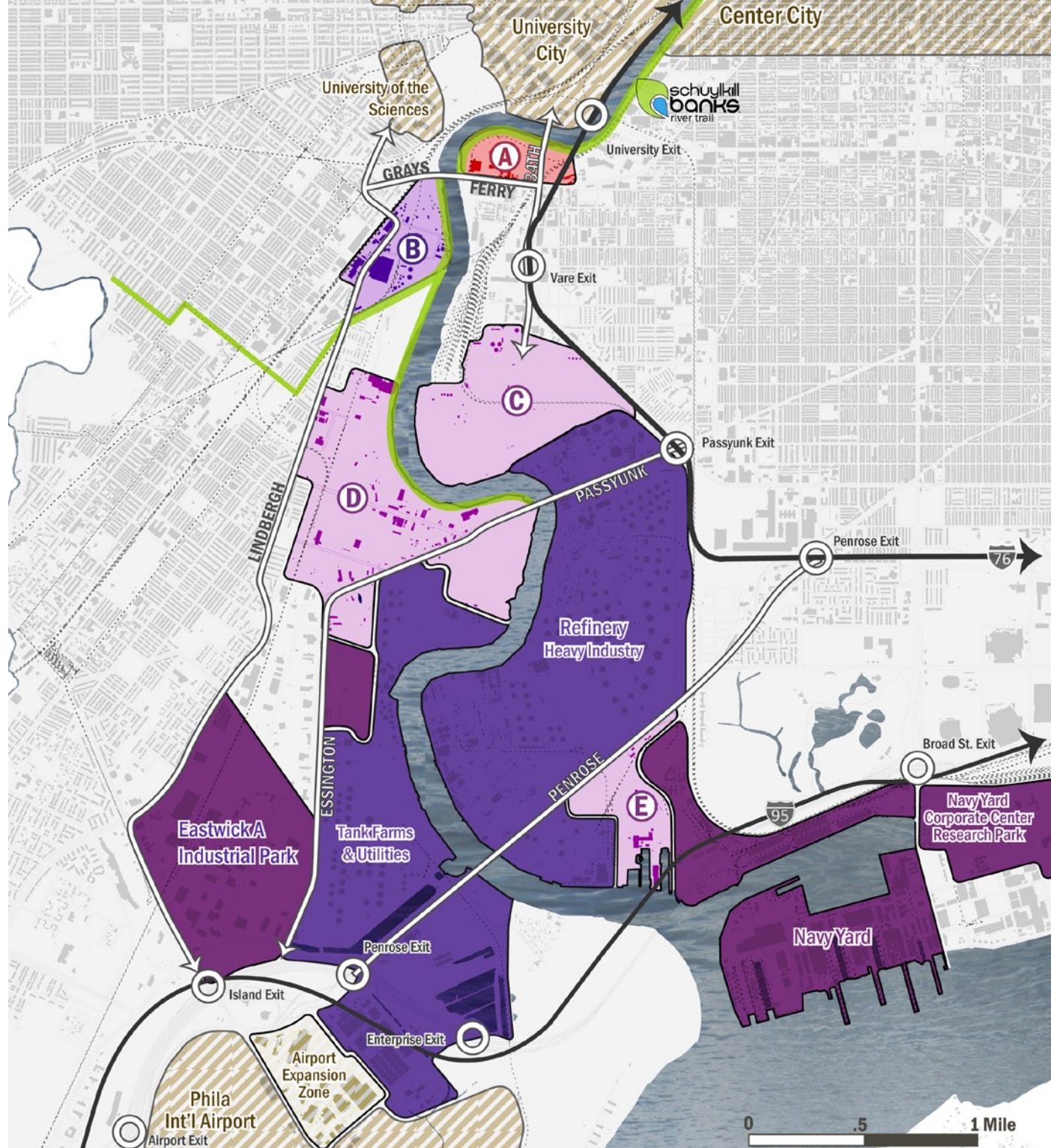




Additionally, the consultant team developed a conceptual vision for underutilized tracts of land located along the lower Schuylkill River. This area represents a tremendous opportunity for new industrial growth from research and development as well as distribution, given its easy access to I-95 and I-76 and close proximity to Center City and University City, Philadelphia International Airport, the Navy Yard, and freight rail. While the overall area represents tremendous opportunities for repositioning for industrial growth, the 254-acre Sunoco North Yard alone, marked “C” in the diagram at right, has the potential to support nearly 3 million square feet of manufacturing, warehouse/distribution, and flex space, *accommodating 3,700 new jobs, \$170 million annually in payroll, and nearly \$17 million annually in tax revenue to the City.*

Both sites would require significant planning for new access, infrastructure, and market positioning, similar to successful large-scale industrial development undertaken by the City of Philadelphia and PIDC at the Navy Yard and in Northeast Philadelphia, on sites adjacent to the Northeast Philadelphia Airport.

- (A) DUPONT CRESCENT**  
TIME TO UNIVERSITY CITY: 4 MINUTES  
TIME TO PHL AIRPORT: 10 MINUTES  
OPPORTUNITY: RESEARCH/MIXED-USE  
52 ACRES
- (B) BOTANIC AVENUE**  
TIME TO UNIVERSITY CITY: 6 MINUTES  
TIME TO PHL AIRPORT: 12 MINUTES  
OPPORTUNITY: ADVANCED MANUFACTURING  
46 ACRES
- (C) SUNOCO NORTH YARD**  
TIME TO UNIVERSITY CITY: 9 MINUTES  
TIME TO PHL AIRPORT: 11 MINUTES  
OPPORTUNITY: PRODUCTION/DISTRIBUTION  
254 ACRES
- (D) EASTWICK B**  
TIME TO UNIVERSITY CITY: 8 MINUTES  
TIME TO PHL AIRPORT: 9 MINUTES  
OPPORTUNITY: PRODUCTION/DISTRIBUTION  
363 ACRES
- (E) NAVY YARD EXPANSION**  
TIME TO UNIVERSITY CITY: 15 MINUTES  
TIME TO PHL AIRPORT: 5 MINUTES  
OPPORTUNITY: PRODUCTION/DISTRIBUTION  
102 ACRES





## ADDITIONAL STRATEGIES FOR RETAINING AND EXPANDING INDUSTRY

In addition to the land use policies outlined above, several other initiatives should be considered in order to sustain long-term industrial development in Philadelphia:

### LEVERAGE STRENGTHS FOR ADVANCED MANUFACTURING

Given Philadelphia's wealth of universities and research hospitals and the key role they play in the City and regional economy, one important opportunity for growth is to better connect these assets to the industrial base. These anchor institutions can also serve as the foundation for diversifying the range of advanced industrial sectors represented in the City. Opportunities range from support for technology commercialization in early stage companies to significant infrastructure investment to create the physical environment required to support large advanced manufacturers.

### "GREEN" INDUSTRY

Sustainability should be the focus of industrial business development strategies. The demand for new products aimed at improving energy efficiency, providing cleaner energy sources, and better managing the storage and distribution of energy will likely be the key driver of industrial demand in the coming decades. The U.S. Department of Energy's designation of an Energy Innovation Hub at The Navy Yard's Clean Energy Campus presents an opportunity for Philadelphia to play a leading role in the emergence of the sustainable energy sector in the U.S., and in particular in connecting research and development in the sector with the manufacture and distribution of end products and technologies.

Building on the City's GreenWorks plan, greening goals should be developed for industry, relating to power consumption and production and incorporation of sustainable features into facility development and operation. These goals and related programs, designed to support and encourage sustainable development, will reduce industrial companies' operating costs over time, provide a market for locally-made sustainable industrial products, and position industrial firms in Philadelphia to effectively compete in this sector as it grows.

### CONTINUE SUPPORT OF TRADITIONAL MANUFACTURING

Given its significance as an employment base and Philadelphia's comparative advantages within the US economy, the City and its related economic development entities will need to continue to support the traditional industrial base.

### DEVELOP THE WORKFORCE

While working to increase Citywide educational attainment, the City and its related workforce development entities will need to place a strong emphasis on STEM (Science, Technology, Engineering and Mathematics) education in order to increase Philadelphia's pool of skilled industrial labor necessary to expand the City's presence in advanced in manufacturing.

### MARKET AND ADVOCATE FOR INDUSTRY

An overall marketing strategy should focus on industrial development in the City, highlighting success stories, opportunities, available sites, and incentive programs.



