



North SODO Station Area Job Strategies to Match Land Use and Transportation

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Submitted by



Submitted to





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that are important to decision-makers.*

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EXECUTIVE SUMMARY

The City of Seattle has established land use and economic development priorities for the City's North SODO area, referring to the industrial areas south of Downtown Seattle. The City's policies state the following priorities for the area:

- **Keep the land primarily in industrial uses.** City leaders cite the economic diversity that comes with industrial activity in the city, along with the living-wage jobs accessible to local residents.
- **Concentrate office and retail uses elsewhere in the City.** City leaders point to places in the city outside of industrial areas that provide ample land zoned for office and retail uses.

The City's commitments to industrial land in SODO are based on the desire to foster economic opportunities for regional residents and businesses and to leverage SODO's access to the Port of Seattle.

The City's commitments also include supporting transit-oriented development patterns to gain the most benefits from the region's investments in high capacity transit. The SODO\Lander Station is among the least utilized transit stations for SoundTransit's LINK light rail, which opened in 2009. The City's policy to limit land uses in the North SODO area to industrial uses prevent greater employment densities that would both benefit from and support the LINK light rail station in the neighborhood.

These commitments appear to conflict with each other in the immediate vicinity of the SODO\Lander LINK light rail station. This study examines employment and land use trends in North SODO to better understand the compatibility and the degree of conflict between SODO station area land use policies and transit utilization. The report includes analysis to inform decision-makers about regional job market and real estate trends, and provides recommendations to consider. Some recommendations weigh the City's objectives against each other and others may be advanced to serve all interested stakeholders.

Key Findings and Considerations

Living Wage Jobs

- Manufacturing jobs are frequently cited as having importance to local economies because they provide living wage jobs. More generally, relatively higher *percentages* of living wage jobs are found in all industrial sectors, including jobs in Construction, Wholesale, Transportation, and Utilities.
- The workforce development value in Manufacturing jobs, while less frequently explicitly expressed, is that the living wage jobs in Manufacturing require only on-the-job training. Many jobs require less education for entry and provide occupation stability within the company, provided the company and its product line is sustainable in the marketplace. Jobs roughly aligned with industrial land uses do provide a

higher *percentage* of jobs attainable with less education and that provide a living wage.

- The Workforce Development Council of Seattle-King County produced a report, also written by Community Attributes, demonstrating the relatively large numbers of jobs in Manufacturing that pay a living wage and are attainable with only on-the-job training. More information available at <http://seakingwdc.org/reports/reports-publications.html>.
- All other sectors do provide living wage jobs. The emphasis is on the percentages of jobs in industrial sectors, because the total volume of living wage jobs is much higher among Services and Retail sectors (as for those living wage jobs requiring less education).
- The value of industrial land for living wage jobs is that those industrial uses can only be accommodated in industrially zoned areas due to the nature of the worksite impacts. The impacts of office-oriented living wage jobs are primarily traffic-related and can generally exist anywhere office is allowed.

Comparative Advantages for Industrially Zoned Land in SODO

- In addition to the living wage jobs provided, industrially zoned land in SODO supports the regional economy for two reasons:
 - **Potential to provide exports that grow the economy.** Production of many export products requires industrially zoned land.
 - **Supporting local distribution networks.** The necessary role industrial land plays to support the local economy through warehousing, local distribution nodes and a range of industrial uses that require a place for activity that generates noise, odors and related industrial impacts (as regulated).
- Industrial businesses value SODO industrial land for the following reasons:
 - Ability to produce products in the city in an area where noxious impacts are allowed and regulated
 - Proximity to the Port of Seattle
 - Proximity to regional distribution networks
 - Proximity to labor markets

Transit Supportive Densities

- Industrial land use is generally not associated with high density employment (jobs per acre of land), and therefore is not as transit-supportive as other uses, such as office or mixed use.
- Higher employment densities are most commonly achieved by companies with professional, technical and service jobs. Those companies and jobs are most associated with traditional office land use and building types.
- High-tech, research-oriented jobs, such as lab space, can also provide high densities. In some cases, the research activities may be most compatible in industrially zoned areas. In those cases, the jobs may work well for

transit-supportive densities as well as industrially zoned land. However, in Seattle at this time, **laboratory uses are in greater demand elsewhere in the city (north of downtown, including South Lake Union and the UW-Fred Hutch corridor, in particular)**. Furthermore, most lab-related uses would not leverage SODO's comparative advantages (described in subsequent sections).

- Research space that would work best in SODO and support transit would include incubator space such as McKinstry's InnovationCenter, or engineering and design services that benefit from proximity to industrial innovation occurring in SODO. Much of this activity would take the land use of form of traditional office. However, this allowed use would have the added benefit of supporting manufacturing and industrial activity at industrial land uses in SODO.

Conclusions

The considerations outlined above provide context for City leaders to align decisions with their stated criteria and supporting information. The analysis and findings lead back to requiring City leaders to choose priorities for SODO considerations, and some of the priorities do appear to conflict with each other to some extent (explored further in the recommendation section that follows):

- To increase ridership at the North SODO station (as a primary criterion for the station area)
 - Allow more development with higher density jobs on-site, which would most likely require more of office development (or allow high density housing which is not allowed at all at present in the City's industrially zoned areas).
- To support access to Port's and regional distribution networks (as their only criterion or highest criterion)
 - Continue to regulate higher density trip generators, such as office
 - Continue to work with transportation planners to separate activity corridors that allow higher volumes of pedestrians to access the LRT station, and allows freight to move throughout SODO unobstructed.
- To focus on SODO's role in a strategy to sustain or increase living wage jobs
 - Re-examine the distribution of living wage jobs among sectors, as provided in this report
 - Re-frame case for SODO industrial jobs as a strategy for only a segment of living wage jobs, and in particular those jobs with low barriers to entry for education
- The case for preserving industrial jobs in SODO includes the following points of reason:
 - Concentration of industrial activity that does not fit well with most other parts of the city
 - Access to Port of Seattle valued by exporters

- Access to regional distribution network valued by supply chain producers
- Access to close-in labor market valued by employers

The case for allowing more office uses are as follows:

- Higher densities will better support the North SODO LINK light rail station
- Strong office space already has a desirable presence in the area including Starbucks, and the converted USPS building now housing the School District headquarters

Recommendations

Recommendations to consider include land use changes, infrastructure investments and economic development strategies for further consideration. Recommendations include:

Land use

- An industrial mixed use overlay for areas close-in to the station would allow flexibility for additional office while allowing existing industrial uses. This would match the City's land use strategy to policy objectives to support living wage jobs and transit-supportive density.
- Consider an industrial mixed use overlay district for the study area that removes size limitations for office uses while maintaining the industrial character of the area. More detailed cases studies are included later in this report, along with a variety of additional references in **Appendix D**.
 - Vancouver, B.C. created a compatibility matrix for dissimilar uses. The matrix allows the City to zone specifically for a target mix of uses that best retains jobs and promotes healthy living.
 - The Hiawatha Light Rail Corridor Overlay in Minneapolis allows additional flexibility in an industrial area that would not normally allow residential. Due to the presence of light rail in the area, it is more desirable for residential uses and merits thoughtful introduction of residential uses in this generally industrial area.
 - The Maritime Industrial Zoning Overlay District in Baltimore (MIZOD) was used to protect industrial uses that use or need deep water access. As waterfront residential and commercial development encroached on maritime industrial uses within the city, the area needed a mechanism to ensure waterfront access for maritime uses.
- No regulatory changes are necessary at this time to allow R&D. Although R&D uses are permitted, there is a lack of clarity about desired industries in the zoning code, which may serve as an unwanted regulatory barrier. If the City desires to promote any particular industries that engage in R&D, the City's economic development and recruitment strategy may further define and promote desired industries and elaborate the definition of R&D in the zoning code accordingly.

- To continue to concentrate retail to key locations, adjust code language to only allow retail to front 1st or 4th Avenues. Currently, retail is allowed anywhere in the industrial zone.

Infrastructure, Transportation and Circulation

- Develop a North SODO Transit Oriented Development Master Plan. A TOD master plan would include a transit-supportive land use plan and continue development and implementation of urban design standards, infrastructure plans, circulation and regulatory updates, streetscape improvements, street design hierarchies, pedestrian improvements and potential incentives to concentrate density and retail to key locations
- Continue to partner with SoundTransit and employers and identify potential transit-station and other public space improvements to enhance place and amenities.
- Both San Francisco's Better Streets Program and Madison Avenue in Cleveland, OH developed guidelines to buffer pedestrians from industrial uses and are described in **Appendix D**.
- Increase outreach with employers in the area to determine barriers to transit use and ways to increase ridership. Consider partnering with employers to offer shuttle service during peak hours from Lander Station throughout the employment loop.
- Continue to analyze infrastructure needs and capital improvement plans including: road upgrades and improvements, stormwater management, pedestrian-walkway improvements, signage, sidewalk, curb, gutter and landscape improvements, service capacity analysis for utilities and sewer and a Traffic Impact Analysis to project impacts of increased density.

Economic Development and Recruitment

- Conduct workshops or informational sessions to share the data and analysis from this report.
- Consider further defining desired R&D uses based on economic industry alignment with the City's jobs and industry strategies.
- Consider conversions of buildings that may be appropriate for office uses.
- Perform an economic assessment of the area considering industry growth projections and niche market opportunities.
- Develop an image for the area to shape and evolve perceptions. Promoting the types of uses that are allowed in SODO and promoting the Industrial Development District (IDD) pilot program to key audiences will elevate interest in the area and improve perceptions.
- Identify existing available Flex/Tech/R&D space and market available sites and buildings to prospective users and the real estate community.
- Encourage the IDD Pilot Program to prioritize employment density and living wage jobs as project criteria for SODO concepts.

Education

- Attracting and retaining living wage jobs and the companies that employ them is not only a function of land use, but involves partnerships with industry, education, workforce development programs and neighborhoods. Training programs, industry outreach and support and transit access are all important to gaining and retaining living wage jobs.
- Aligning educational programs with long-term industry needs can improve real job prospects for workers.
- Living wage jobs are more often associated with higher levels of education, such as a bachelor's degree. Education strategies are also important to ensure Seattle's workforce is both competitive and economically self-sufficient.

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North SODO Station Area

Jobs Strategies to Match Land Use and Transportation

INTRODUCTION

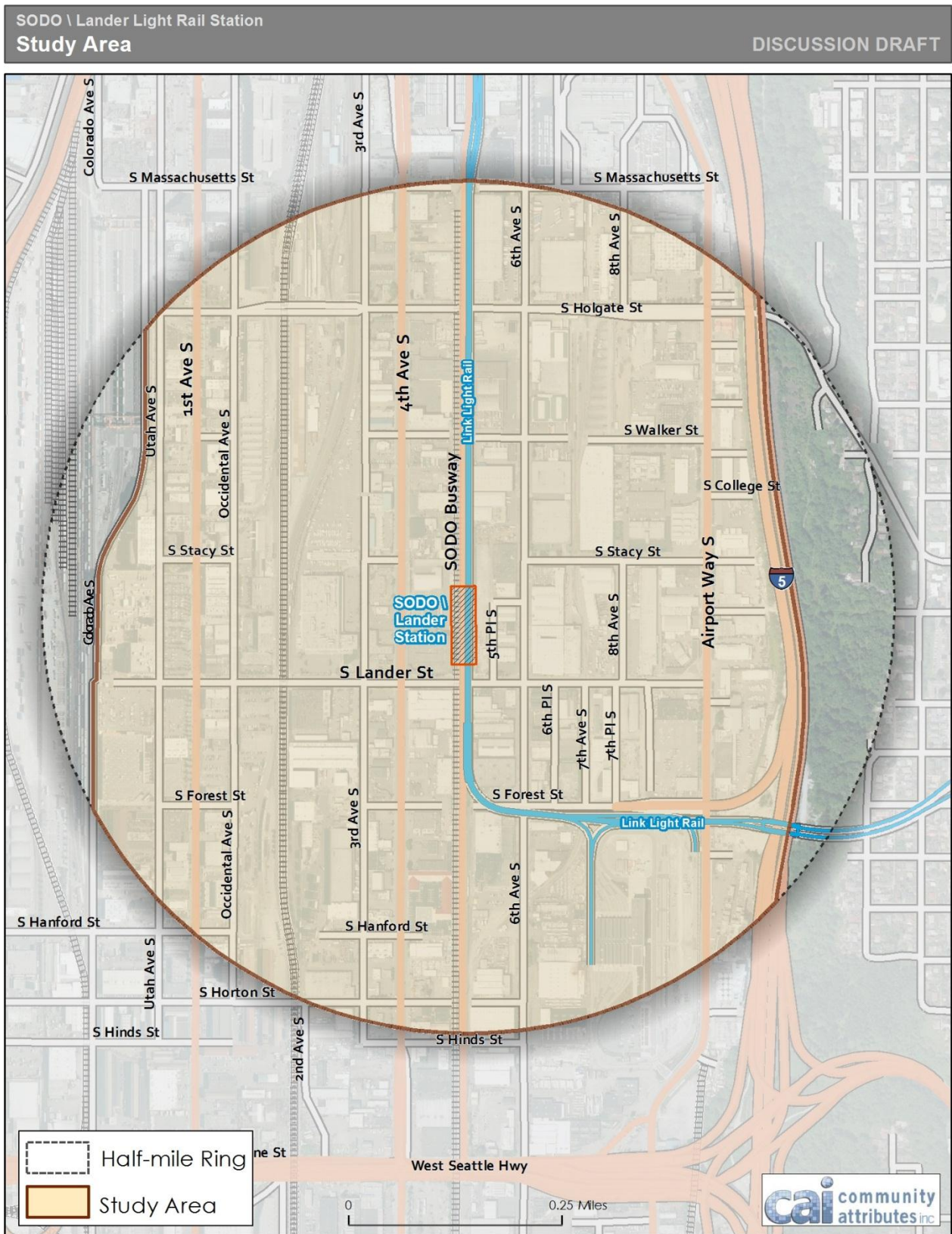
Background and Purpose

The Seattle City Council seeks recommendations that foster development of living wage jobs in ways that do not displace sustainable industrial, manufacturing, warehousing and Port/Rail dependent enterprises in SODO. This study seeks to highlight the industries and occupations that pay living wages in King County and determine compatibility with land use and opportunities to support transit.

This document surveys the study area, presented in **Exhibit 1**, and provides a professional assessment of development trends and opportunities to create living wage jobs that are compatible with SODO's history and future. Stakeholder perspectives from a limited number of businesses and organizations in SODO provide insight into challenges, opportunities and future growth.

Council remains interested in fostering a robust industrial sector as part of a diversified Seattle jobs base and as one of several leverage points for economic recovery. Yet questions remain whether the north part of SODO is well positioned to best capture job-generating economic development given changes in the types of commerce dominating parts of the area and the introduction of the SODO/Lander light rail station. This report summarizes current conditions, including the employment profile of the area, market demand for a variety of land uses, including research and development (R&D), and assesses employment density for transit-friendly job growth.

Exhibit 1. Study Area Boundary



Methods

The analysis presented in this report relies on secondary data analysis and primary data collection. Secondary data analysis draws from data compiled by public and private entities, including the King County Assessor, Puget Sound Regional Council (PSRC), Bureau of Labor Statistics (BLS), Department of Planning and Development's 2008 Windshield Survey, City of Seattle land use regulations and plans and other publicly available data. Private data sources include Hoovers and CBRE. Much of the analysis relies on parcel-level data and cartographic analysis.

Primary data was collected through field visits, as well as telephone interviews with land owners, business operators and community leaders.

Organization of Report

The report includes the following sections, which follow this introductory section:

- **Living Wage Jobs, Sectors and Land Use** demonstrates the occupations considered to offer living wages, the sectors that employ those occupations and the land uses they require. Analysis of intensity of development and employment are also discussed.
- **Current Conditions Assessment** includes an analysis of the current employment profile, worker commute patterns, land use and building improvement considerations.
- **Compatibility of Existing Zoning with Employment Density and Retail** highlights office, flex/tech, R&D and retail compatibility with industrial uses.
- **R&D Trends and Outlook** presents demand for R&D space in the region and includes perspectives from real estate experts on R&D growth prospects.
- **Case Studies** from Vancouver, B.C., Minneapolis, MN and Baltimore, MD.
- **Findings and Recommendations** highlights findings and potential strategies to consider as policy makers balance priorities and SODO's unique characteristics.
- **Appendices.** Appendices include: the list of interviewed stakeholders, perspectives from stakeholders organized by theme, a summary of permitted land uses, additional case studies of interest and works consulted.

LIVING WAGE JOBS, INDUSTRY SECTORS AND LAND USE

Industry perspectives and research of the area highlight competing interests that have challenged policy makers for years. Real estate pressures to develop at a higher intensity and the area's convenient location for a variety of industries continue to compete. In order to gauge and balance competing priorities, this section analyzes the relationships between occupational employment and wages, industry sectors and land use. This series of analytics is meant to shed light on the types of land uses that will accomplish multiple goals, including: industrial land preservation, transit-supportive job density and living wage jobs.

This section includes the following:

- Identification of the occupations and associated industries in King County that pay a living wage and the relationship of those industries to specific land use types. This section answers the questions:
 - **What industries employ living wage jobs?**
 - **How many people are employed in these industries?**
 - **What is the percentage of total jobs in each of these industries that pay a living wage?**
 - **What type of land uses do those industries need?**
- An analysis of employment density

Definitions of Living Wage Jobs

The City of Seattle prioritizes policies that support living wage jobs. A living wage is one which provides for the earner's basic costs of living without the need for government support or poverty programs. Basic costs of living include provision of food, housing and utilities, child care, health care, household expenses, taxes, and some savings.

Calculations of what constitutes a living wage depend on several variables, including location of the residence and the number of people dependent on those wages. For example, a single person with no dependents will require less income to meet a living wage standard than will a single-parent household with children. Specific inclusions of 'basic costs of living' vary by methodology.

The Workforce Development Council of Seattle King-County commissioned a report on the Self-Sufficiency Standard for Washington State, a measure of living wages across the state. As of 2011 a living wage in the City of Seattle for a single adult is \$10.62 per hour, an annual income of \$22,423. For a single adult with a preschool age dependent, the living wage is \$22.17, an annual income of \$46,831. A single adult with a preschooler and a school-age child requires an hourly wage of \$26.94, an annual income of \$62,678.

The Partnership for Learning commissioned a study on skill development and educational attainment necessary to earn a 'family-wage' job, the definition of which is synonymous with that of a living wage. In 2006, a single adult with a

preschool-age child and a school-age child would need to earn \$25.24 per hour, an annual income of \$52,509.

Educational attainment affects accessible, well-paying jobs, as well. For public policy, living wages typically apply to occupations that do not require a four-year degree or higher.

This report uses an annual income of \$35,000 to define a living wage job. These criteria were selected based on knowledge of the labor market and averages for single individuals, single-parent households and dual-income households.

Living Wage Jobs by Industry

Exhibit 2 reflects industries by living wage jobs as a percent of total employment and living wage jobs most often related to an associate's degree or less.

- Utilities, Construction, Manufacturing, Data Processing, Wholesale & Transport have the highest percentages of living wage jobs.
- Construction also employs a high percentage of living wage jobs (78%) and represents the highest percentage of living wage jobs related to an associate's degree or less as a percent of total employment. Fifty-four percent (54%) of Construction jobs related to an associate's degree or less pay a living wage, followed by Wholesale and Transport (47%), Utilities (36%) and Manufacturing (23%).
- Professional, Government and Social Services has the highest number of jobs overall, and 66% of jobs in that industry pay a living wage.
 - Twenty-five percent (25%) of Professional, Government and Social Services jobs associated with an associate's degree or less pay a living wage.
- Retail/Services/Accommodation has the lowest percentage of living wage jobs at 27%, 20% of those are related to an associate's degree or less, indicating a lower paying and educated industry.
- Forty five percent (45%) of Production jobs pay a living wage, 29% of those are related to an associate's degree or less.
- Forty four percent (44%) of Cars industry jobs pay a living wage, 31% are related to an associate's degree or less.
- Data Processing has the lowest percentage of living wage jobs related to an associate's degree or less at 21% although 75% of jobs in Data Processing pay a living wage.

Living Wage Jobs and Land Use

Not all industries that employ living wage jobs are compatible with industrial land uses. Professional, Government & Social Services and Retail/ Services/ Accommodation are not generally compatible with industrial land uses, as shown in **Exhibit 2**. The exhibit assigns all jobs in all sectors as most suitable for either commercial or industrial lands, and breaks out industrially suited sectors based on differing needs for land. The exhibit presents the number of jobs, by industry, that do not pay living wages; jobs that pay a living wage and are associated with a bachelor's degree or greater; and jobs that pay a living wage that are associated with less than a bachelor's degree.

Exhibit 2. Total Jobs by Industry and General Land Use, King County, 2010

Source: Bureau of Labor Statistics, Community Attributes Inc., 2012.

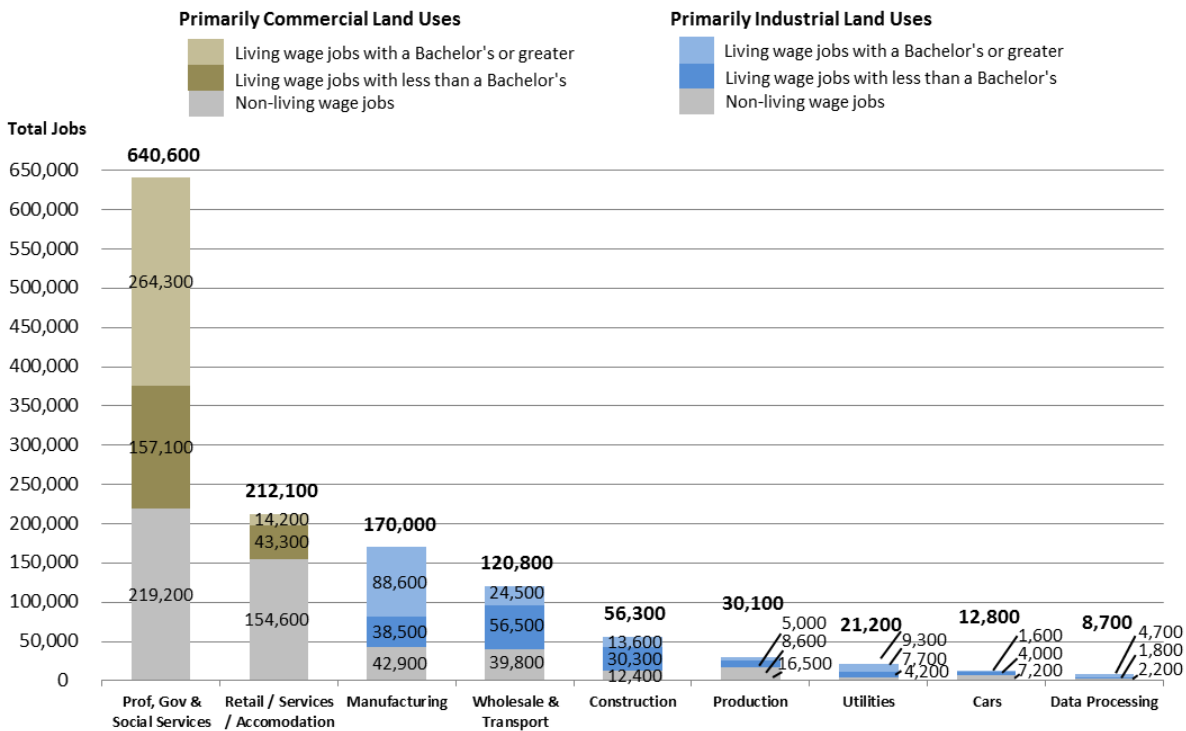
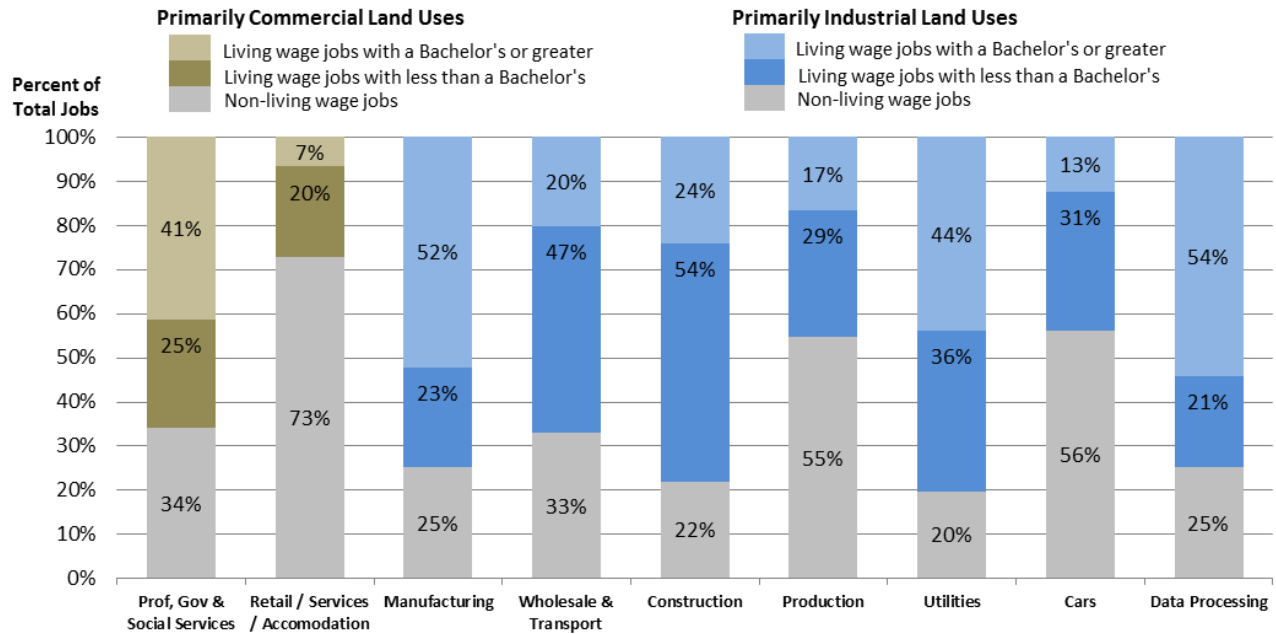


Exhibit 3 shows the percentage of living wage jobs out of total jobs, separated by educational attainment, for each sector and primary land use.

Exhibit 3. Percentage of Total Jobs by Type, Industry, and General Land Use, King County, 2010



Source: Bureau of Labor Statistics, Community Attributes Inc., 2012.

Land Uses for Industries that Pay Living Wage Jobs

Exhibit 4 demonstrates an estimated distribution of the land use that living wage job industries (per **Exhibit 2**) require, highlighting the estimated distribution of employment across different land uses. Some industries' activities are contained to one land use type, such as Professional, Government and Social Services which is associated with office land use, whereas other industries, such as Construction, may engage in activities that correspond to a variety of land use types including Office, Heavy Sales/Service and Public Facilities/Utilities. Each industry's employment is distributed across existing land uses within the North SODO study area and represents the proportion of jobs located in each land use category. For example, 100% of the Data Processing jobs are estimated to be located within an Office land use, while Wholesale & Transport jobs are distributed among three land use categories: Heavy Sales/Service, Storage/Warehouse and Transportation.

Exhibit 4. Estimated Land Use and Employment Industry Crosswalk

Industry	Land Use							Total
	Office	Retail/ Service	Heavy Sales/ Service	Public Fac./ Util.	Manufact./ Processing	Storage/ Warehouse	Trans.	
Auto Sales and Service	0%	70%	30%	0%	0%	0%	0%	100%
Construction	10%	0%	75%	15%	0%	0%	0%	100%
Data Processing	100%	0%	0%	0%	0%	0%	0%	100%
Manufacturing	0%	0%	0%	0%	100%	0%	0%	100%
Production	50%	25%	0%	0%	0%	25%	0%	100%
Prof, Gov & Social Services	100%	0%	0%	0%	0%	0%	0%	100%
Retail / Services / Accom.	0%	100%	0%	0%	0%	0%	0%	100%
Utilities	0%	0%	0%	100%	0%	0%	0%	100%
Wholesale & Transport	0%	0%	50%	0%	0%	30%	20%	100%

Source: Community Attributes Inc., 2012.

Living Wage Jobs Densities on Industrial Lands

Concentrating high densities of living wages jobs on industrially zoned land is challenging due to the way industrial businesses use land. The next two sections present how land in North SODO demonstrates this challenge. This does not indicate that the land is not well utilized; rather, industrial land users do not have high development densities or employment densities.

Building Density by Land Use

An analysis of current building densities organized by land use reveals that the study area is not intensely built-out when considering overall building space (**Exhibit 5**). Based on King County Assessor data there are 8.8 million square feet of building space on 15.8 million square feet of parcel land area within the study area. The largest land use categories by building square feet are Office, Manufacturing/Processing and Warehouse. Only the Office category is built-out to an FAR greater than 1.0 (floor-area-ratio or FAR is a density measure that relates the total developed area to the developable area of a parcel). The overall FAR of the study area is 0.56.

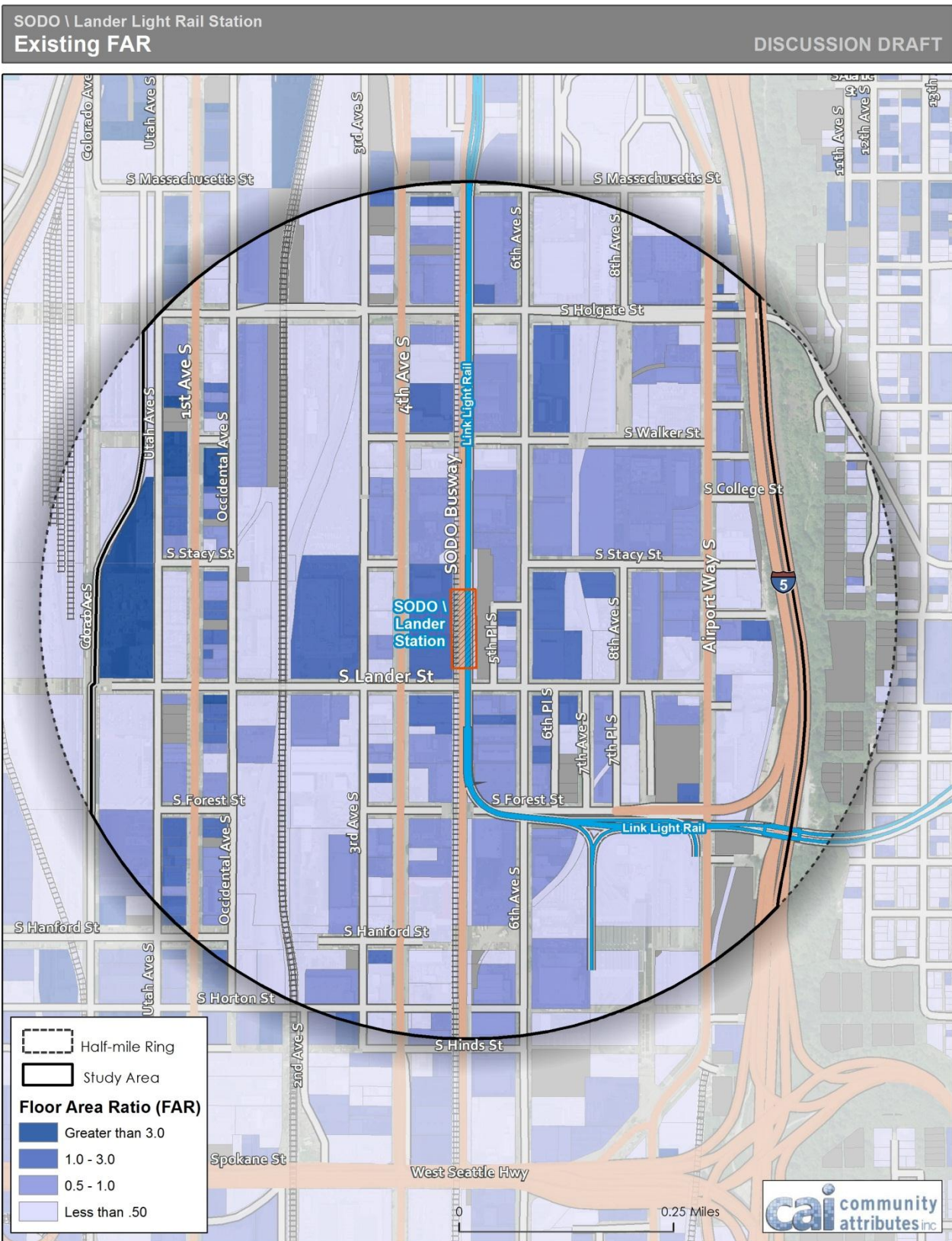
Exhibit 5. Land and Building Square Footage by Land Use Category, North SODO Study Area, 2011

Land Use Category	Total Land Area (s.f.)	Total Building Area (s.f.)	FAR
Heavy Sales/Service	940,392	698,078	0.74
Manufacturing/Processing	1,280,194	1,047,811	0.82
Office	1,497,480	2,683,728	1.79
Outdoor Storage	1,036,158	-	-
Parking	1,083,007	892,932	0.82
Public Facilities/Utilities	740,205	249,384	0.34
Retail/Service	1,987,185	976,802	0.49
Transportation	4,162,470	341,228	0.08
Vacant	557,906	294,833	0.53
Warehouse	2,513,321	1,696,558	0.68
Total	15,798,319	8,881,354	0.56

Source: King County Assessor, 2012, Seattle DPD 2008, Community Attributes Inc., 2012.

Exhibit 6 visually represents the intensity of development and demonstrates that there are only a handful of parcels with an FAR greater than 2.0. The majority of development is built to less than 1.0 FAR.

Exhibit 6. Existing FAR, North SODO Study Area, 2011



Employment Density by Land Use

Exhibit 7 illustrates the theoretical density of jobs per 1,000 building square feet organized by land use category. In addition to understanding the concentration of living wage jobs in a given industry and their distribution across land uses, estimating the number of jobs per 1,000 square feet further reveals job density. These assumptions are based on industry standard inputs developed by, among others, the Institute of Traffic Engineers (ITE) and the Urban Land Institute (ULI). The highest job concentrations are found under Office, Heavy Sales/Service and Retail/Service land use categories (both at 3.72 jobs per 1,000 Building s.f.). The total number of jobs per acre emphasizes this concentration. Normalizing the number of jobs by land area provides a better understanding of overall employment densities. Office land use is estimated to be the most job dense category with 232 jobs per acre. Office land use accounts for a total of 34.4 acres of land within the study area. For comparison, the Warehouse land use category accounts for 57.7 total land area (s.f.) at an estimated employment density of 30 jobs per acre.

Exhibit 7. Theoretical Employment Capacity of North SoDo Land Uses, North SODO Study Area, 2011 Land Uses

Land Use Category	Total Land Area (s.f.)	Job Concentration (per 1000 s.f. Building)	Theoretical Capacity of Jobs*	Jobs Per Acre
Heavy Sales/Service	21.6	3.72	2,077	96
Manufacturing/Processing	29.4	2.31	1,936	66
Office	34.4	3.72	7,986	232
Outdoor Storage	23.8	1.28	-	-
Parking	24.9	n/a	n/a	n/a
Public Facilities/Utilities	17.0	2.31	460	27
Retail/Service	45.6	3.72	2,906	64
Transportation	95.6	1.28	349	4
Vacant	12.8	n/a	n/a	n/a
Warehouse	57.7	1.28	1,737	30
Total	362.7		17,451	48

*No vacancies

Source: Community Attributes Inc., 2012.

SODO CURRENT CONDITIONS ASSESSMENT

Area Definition

The Lander Station was built in 2010 on Fourth Avenue and Lander Street. This station is on the LINK light rail route running from Downtown Seattle to SeaTac International Airport.

North SODO, the focus of this report, is the area within one-half mile of the SODO SoundTransit Station one block east of 4th Avenue on Lander Street. Safeco Field is located immediately north of the North SODO neighborhood.

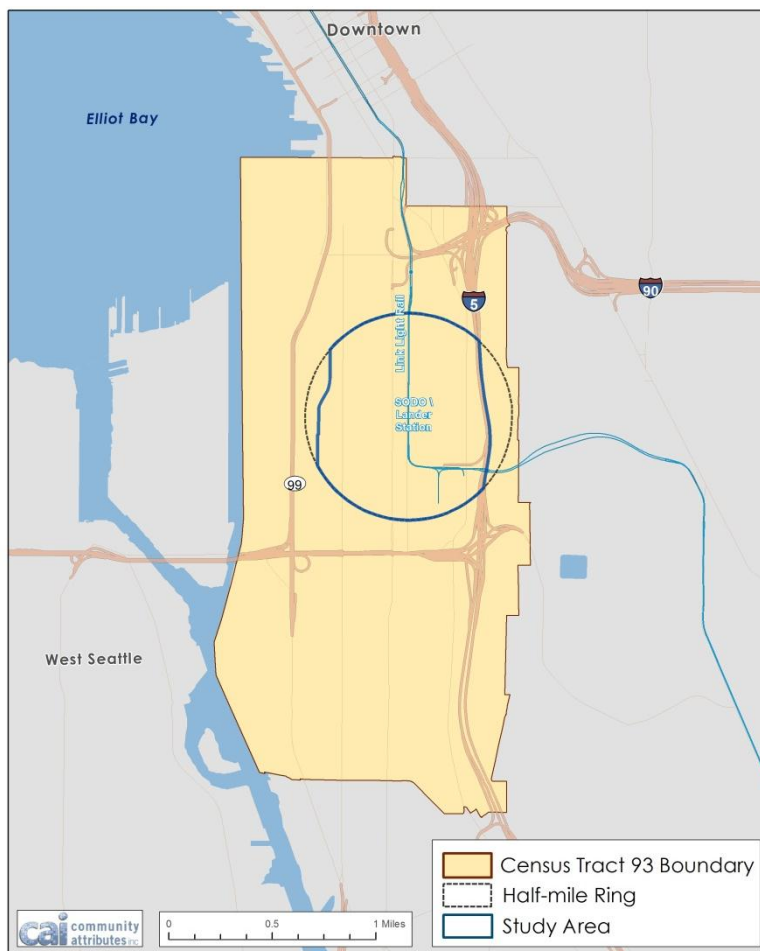
The larger SODO neighborhood is located south of Downtown Seattle, bounded by the Duwamish River and Puget Sound on the west, the I-5 freeway to the east, Jackson Street to the north and Dawson Street to the south. SODO is one of the most recognized industrial districts in the Puget Sound region given its proximity and visibility to and from Downtown and the presence of major employers and retailers in the area.

SODO is part of the Duwamish Manufacturing and Industrial Center and contains the majority of Seattle's industrial land base, in addition to retail, office and entertainment uses. **Exhibit 8** represents census tract boundaries which were used to compare the Study Area to the larger MIC industrial area.

Relevant Plans

A variety of studies and analyses were conducted over the last several years to guide development and respond to market pressures in SODO and the Duwamish MIC in general. The City has long-prioritized the needs of industrial areas and worked diligently to balance market forces for evolving land use with the

Exhibit 8. SODO Census Tract



desire to preserve an important economic engine for the region. The following are examples of previous studies performed on Seattle's industrial lands:

- **The Future of Seattle's Industrial Lands (2007).** In May 2007, the City of Seattle Department of Planning and Development produced the *Seattle Industrial Lands Report*, which summarized existing policy guidance, current conditions and projections of what may be needed to support industrial businesses in the future. The Industrial Lands Report included interviews with 150 businesses for their input on existing industrial operations and real estate pressures to identify concerns regarding the future of industrial uses and identify policies and strategies to support them.
- **SODO Action Agenda (2009).** The City of Seattle's Office of Economic Development (OED), in coordination with the Seattle Department of Transportation (SDOT) and the Seattle Police Department (SPD) completed the *SODO Action Agenda* in 2009. The Action Agenda includes a set of recommendations that address SODO priorities for transportation and public safety.
- **Livable South Downtown-Executive Recommendations (2009).** In 2009, the City produced *Livable South Downtown—Executive Recommendations*, a comprehensive report that identifies land use legislation and recommendations to enhance neighborhood vitality. The report analyzes several subdistricts within South Downtown. The recommendations in the report acknowledge the need to balance redevelopment and existing industrial uses, as well as increase pedestrian friendliness at key locations.

The findings of this analysis are based on a variety of factors that may differ slightly from previous reports and analyses. In the past, the focus on land use compatibility and real estate values resulted in strategies to preserve existing industrial uses under the pressure of rising land values (gentrification) and minimize conflicts with the incrementally evolving retail and service corridors. This analysis reviews wages and employment density as additional values to further scrutinize and prioritize appropriate land uses and target industries in North SODO.

Industrial Development District (IDD)

The City of Seattle is initiating an Industrial Development District pilot program to encourage new approaches to industrial development by requesting concepts for pilot projects on any land in Seattle or King County that is industrially-zoned. The Industrial Development District consists of a partnership between the City of Seattle, King County, the Port and the State of Washington that is focused on economic growth, job creation and enhancement of the environment. The plan for the IDD is centered on the following guidelines:

- Provide positive economic benefit;
- Result in equal to or better measurable environmental performance than would result from current regulations; and
- Be located on currently industrially zoned land.

The IDD plan is intentionally designed as a broader approach to economic development, wherein economic growth will also result in environmental benefits. A primary goal is to attract new industrial development within existing manufacturing and industrial centers.

Specific goals for the project include offering regulatory and policy flexibility, and financial support for up to 10 pilot projects that demonstrate a future model for the region's industrial economy; with outcomes that include but are not limited to entrepreneurship, innovation, a strengthened supply chain, increased manufacturing and exports, and/or enhanced environmental performance. The pilot program will identify and test new regulatory, environmental and financial approaches to support the concept.

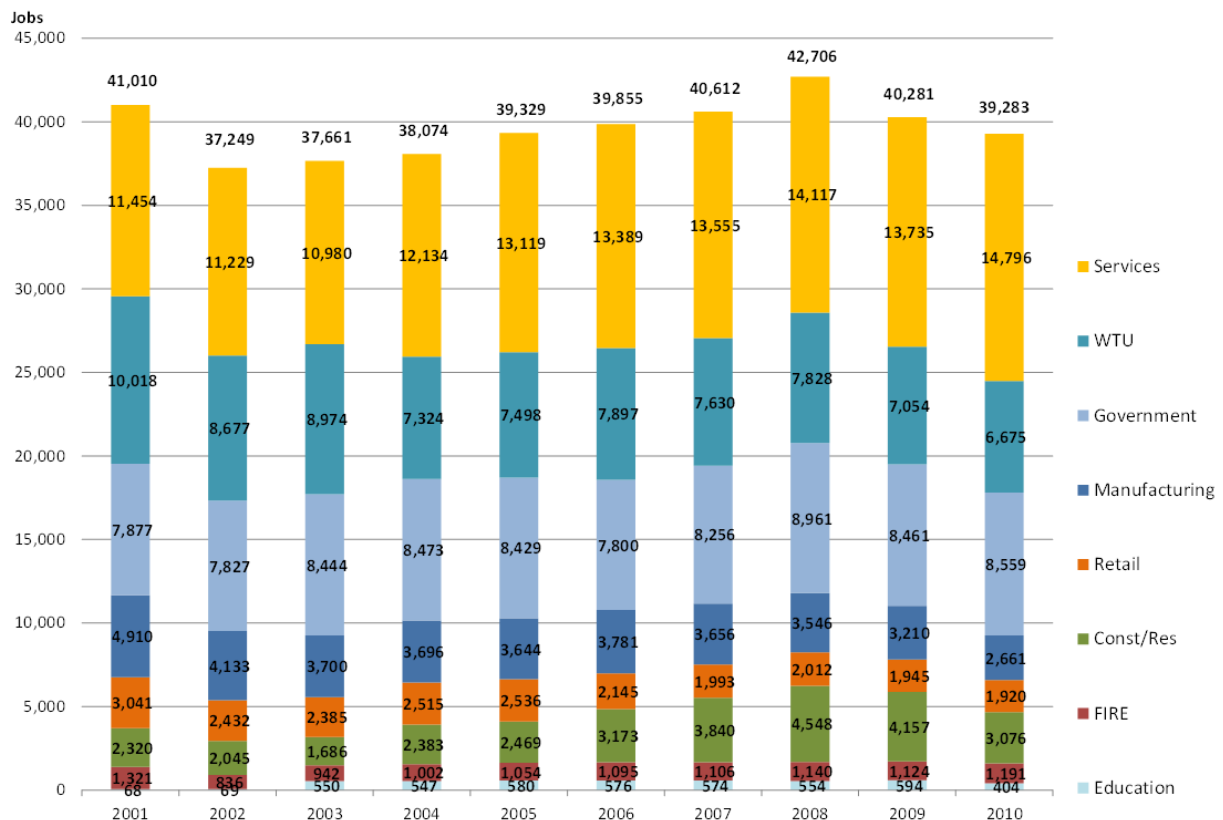
This program applies to any location in Seattle or King County that is industrially-zoned, including SODO. Due to SODO's location, proximity to Lander Station, presence of diverse land uses and the City's desire to increase living wage jobs in the area, SODO concepts received under the pilot program may prioritize higher employment density and living wage jobs. Although industrial land use is not typically job-dense, specific ideas presented through the pilot program may challenge this and introduce new concepts that are transit supportive. As written, the pilot program requires that projects generate a positive economic benefit, "e.g., new jobs that support or lead to self-sufficiency (as defined by the Seattle-King County Workforce Development Council), increased revenues, increased exports, operational efficiencies, market expansion, etc." As written, jobs that support or lead to self-sufficiency is just one example the project could include to demonstrate a positive economic benefit. To better align the IDD program with transit and living wage jobs, concepts proposed for SODO could emphasize criteria for employment-density and living wage jobs.

Current Employment Profile

Exhibits 9 and 10 illustrate employment within the overall SODO census tract and Study Area. The estimates are provided by the PSRC and are based on covered employment data (QCEW Data) collected by the State of Washington and federal government.

Exhibit 9 demonstrates that overall employment within the larger SODO census tract area has remained relatively flat, dropping slightly from approximately 41,000 jobs in 2000 to just under 40,000 jobs in 2010. The three largest employment sectors include Services, Government and WTU (Wholesale Trade, Transportation and Utilities). All sectors experienced both growth and decline over the period. The Services Sector is the largest employment category in the SODO Census Tract and overall expanded from 11,454 jobs in 2001 to 14,796 in 2010. Employment in the WTU Sector declined over the last decade, dropping from 10,018 in 2001 to 6,675 in 2010. Manufacturing has also slowly declined over the years and by 2010 employed 2,661 people. Manufacturing represents approximately 7% of total employment in the area.

Exhibit 9. PSRC Covered Employment SODO Census Tract, 2000-2010



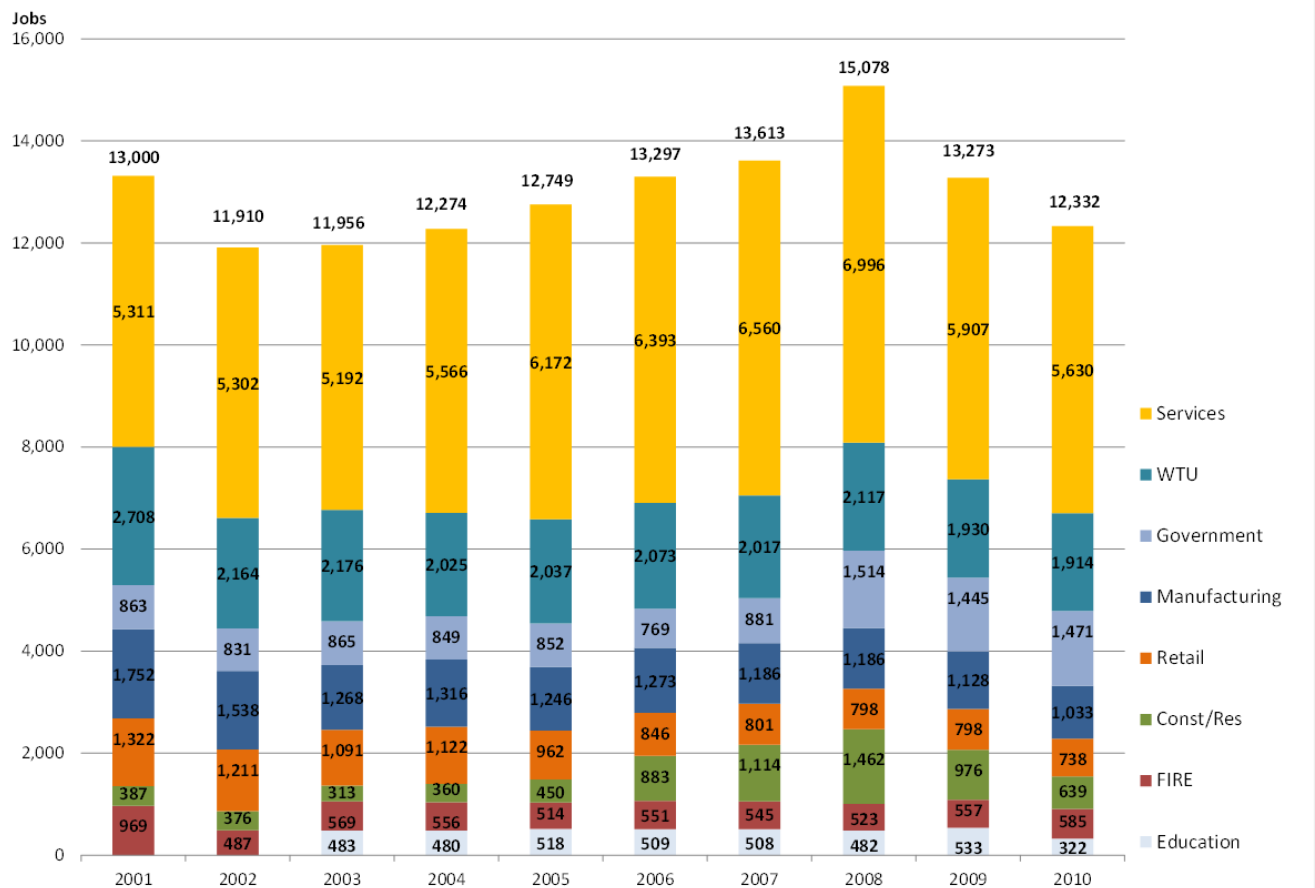
Note: Census Tract 93.00.

Source: PSRC Census Tract Covered Employment Estimates, 2010.

Exhibit 10 represents the same data for the North SODO Study Area (boundary outlined in **Exhibits 1** and **8**). Jobs in North SODO grew steadily from 2002 through 2008, and declined with the recession. All sectors experienced both growth and decline during the 10 year period. Services grew by 34% from 2003 to 2008 and then declined by 20% from 2008 to 2010. Wholesale jobs declined slightly throughout (down by 12%). Manufacturing jobs declined from 2003 to 2010 (33%). Construction grew rapidly from 2003 to 2008 (4.6 times) and declined rapidly from 2008 to 2010 (65% decline). Interestingly, although the number of retail establishments increased, the number of retail jobs declined during the same period (from 1,322 to 738). This may be explained by one of the largest employers cutting reported employment by 20%-40%, with the other one moving to a new location (Sur La Table). Additionally, large retailers may have fewer staff on the floor than they used to.

As of 2010, thirty one percent of SODO Census Tract jobs are in the North SODO Study Area. Approximately 7% of jobs in the census tract are in Manufacturing and 8% of jobs in the North SODO Area are in Manufacturing. Services, on the other hand, make up close to 37% of the Census Tract jobs and approximately 46% of North SODO Study Area jobs.

Exhibit 10. PSRC Covered Employment, North SODO Study Area, 2001-2010

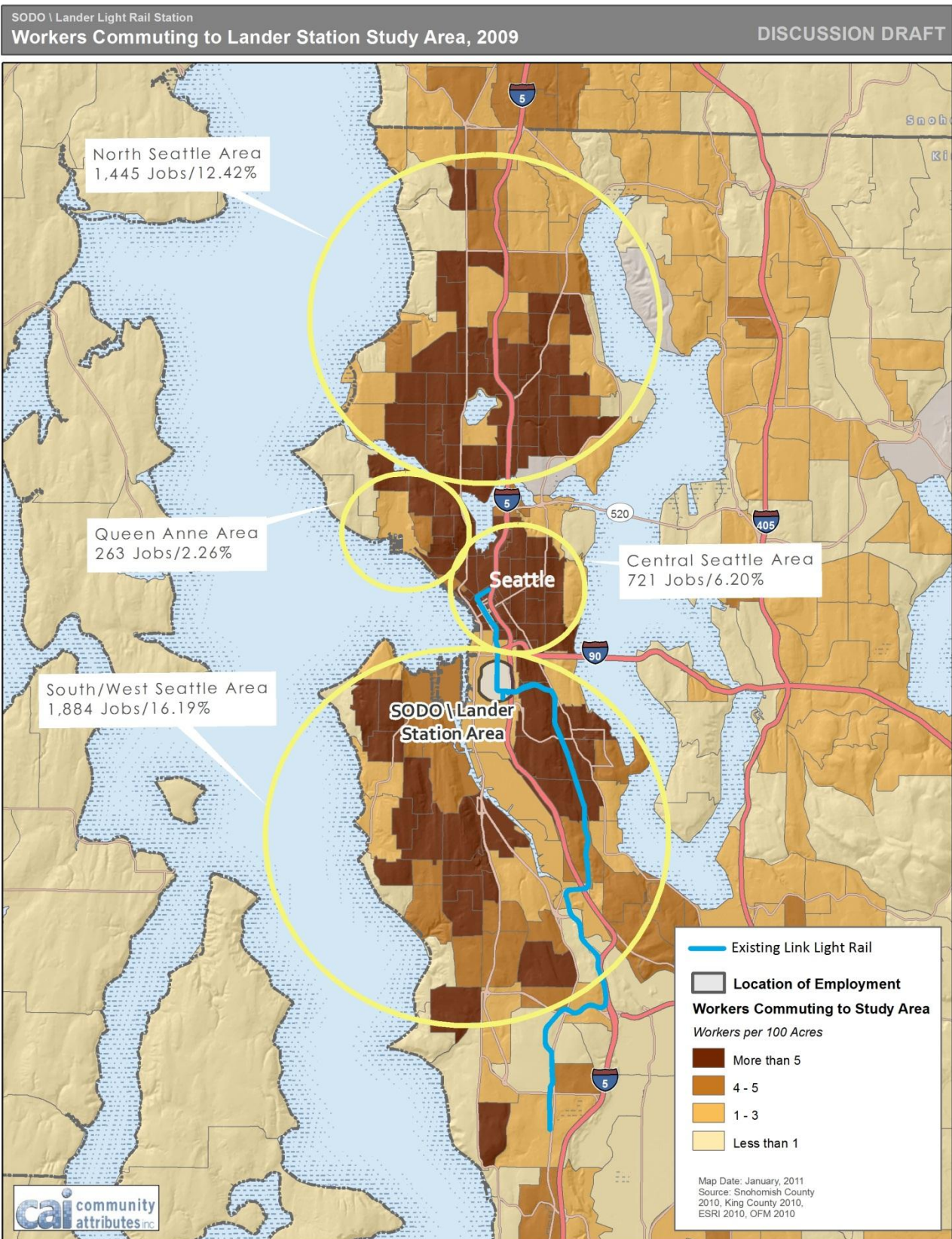


Source: PSRC Census Tract Covered Employment Estimates, 2010.

Commuting Patterns

Understanding workforce commuting patterns is useful when analyzing the study area and the impacts of Lander Station. **Exhibit 11** illustrates the locations from which SODO employees travel to work in the study area. Slightly more than 16% of all SODO employees commute from South/West Seattle, 12% from the North Seattle Area, just over 2% from the Queen Anne area and approximately 6% from Central Seattle. This means that approximately 36% of people who work in SODO commute from within Seattle and from suburbs directly to the north and south. These areas are dense and well served by transit. The remainder of the workforce commutes from outside the immediate vicinity of Seattle. The current alignment of the LINK light rail line does not traverse large areas of employment concentrations. Service areas will change as the system expands over the next decade.

Exhibit 11. Employees Commuting to Lander Station Study Area, 2009



Land Use, Transit and Density

This section first describes the existing zoning and land use regulations and actual, existing uses to gain a detailed perspective of the existing land use pattern.

Existing Allowed Uses and Zoning

The majority of the Study Area is zoned IG1 and IG2, which limits the types of non-industrial uses permitted near Lander Station. Office and retail uses are permitted, but are restricted by specific size regulations. Zoning in the North SODO area is Industrial, including areas classified as IG 1 U/85, IG 2 U/85 and IC 85. IC 85 represents a small portion of the Study Area and is discussed in the following analysis. **Exhibit 12** briefly summarizes the applicable zoning designations within the study area, while **Exhibit 13** provides a map depicting the zoning boundaries within the study area.

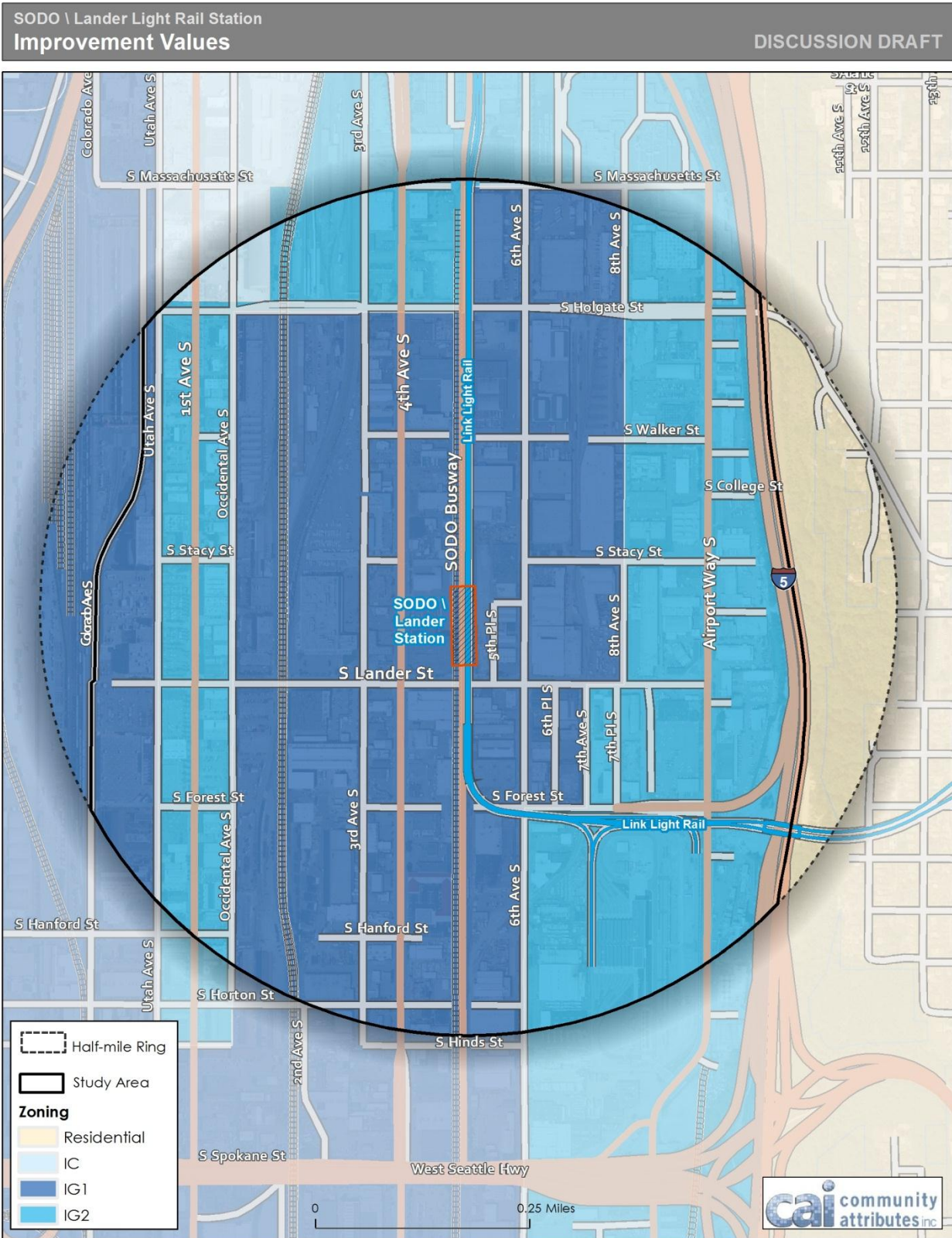
Exhibit 12. Zoning Summary, North SODO Study Area, 2011

Zoning	Overlay	Urban Village	Height Limit	Max FAR
IC-85	STADIUM	Duwamish MIC	85	3
IG1 U/85	n/a	Duwamish MIC	85	2.5
IG2 U/85	n/a	Duwamish MIC	85	2.5

Source: City of Seattle Municipal Code, 2011.

General Industrial 1 (IG1) and General Industrial 2 (IG2) allow for general and heavy manufacturing and commercial uses subject to some limits according to the City of Seattle Zoning Code. General Industrial 1 (IG1) protects marine and rail-related industrial areas from an inappropriate level of unrelated and commercial uses by limiting density and size. General Industrial 2 (IG2) allows for a broader range of uses where industrial functions of an area are less than those established in the IG1. A full list of permitted and prohibited uses for each zoning district is provided under **Appendix C**.

Exhibit 13. Zoning Map, North SODO Study Area, 2011



In order to preserve industrial uses and the overall industrial nature of the area, size limitations currently exist in several land use categories. These are summarized in **Exhibit 14**. In general, Retail and Office uses are limited in size in a large majority of the study area. IG2 allows for some greater flexibility for Office, Retail and Sales uses.

Exhibit 14. Land Use Size Limitations, North SODO Study Area, 2011

Uses Subject to Size Limits	IG1	IG2	IC - Duwamish MIC
Animal Shelters and Kennels	10,000 sq. ft.	10,000 sq. ft.	No Size Limit
Drinking establishments	3,000 sq. ft.	3,000 sq. ft.	No Size Limit
Entertainment	10,000 sq. ft.	10,000 sq. ft.	No Size Limit
Lodging Uses	10,000 sq. ft.	10,000 sq. ft.	No Size Limit
Medical Services	10,000 sq. ft.	10,000 sq. ft.	No Size Limit
Office	10,000 sq. ft.	25,000 sq. ft.	No Size Limit
Restaurants	5,000 sq. ft.	5,000 sq. ft.	No Size Limit
Retail Sales, Major Durables	10,000 sq. ft.	25,000 sq. ft.	No Size Limit
Sales and Services, Automotive	10,000 sq. ft.	25,000 sq. ft.	No Size Limit
Sales and Services, General	10,000 sq. ft.	25,000 sq. ft.	No Size Limit

Source: Seattle Municipal Code, 2011.

Exhibits 15 and 16 summarize parcel sizes and distribution of land use within the study area. The median parcel size is just under a half acre and 74% of parcels are less than one acre in size. Transportation uses are the most common land use category accounting for 26% of the study area. Warehouse uses account for 16% of the study area and Retail/Service uses account for 13%. All other uses are in single digits.

Exhibit 15. Parcel Size Summary, North SODO Study Area, 2011

	Parcel Count	Area (Acres)	Percentage Parcel Area
5 acres or more	17	135	5%
2- 5 acres	32	97	10%
1-2 acres	35	51	11%
Less than 1 acre	234	93	74%
Total	318	376	100%
Median Parcel Size (Acres)	0.45		

Source: Community Attributes, Inc., King County Assessor, 2011.

Exhibit 16. Percentage Land Use, North SODO Study Area, 2012

Land Use Category	Land Area (s.f.)	Percentage of Study Area
Heavy Sales/Service	940,392	6%
Manufacturing/Processing	1,280,194	8%
Office	1,497,480	9%
Outdoor Storage	1,036,158	7%
Parking	1,083,007	7%
Public Facilities/Utilities	740,205	5%
Retail/Service	1,987,185	13%
Transportation	4,162,470	26%
Vacant	557,906	4%
Warehouse	2,513,321	16%
Total	15,798,319	100%

Source: King County Assessor, 2012, Seattle DPD 2008, Community Attributes Inc., 2012.

Exhibit 17 shows land uses in the area surrounding the Lander Station area, which are predominately industrial uses. Within the one-quarter of a mile walking distance from Lander Station, the area is zoned IG1 U/85 and contains industrial uses, supplemented with some Retail/Service uses along the Fourth Avenue corridor. Moving to the one-half mile walking distance from the station, there are significantly more office/flex uses although the predominant uses tend to be industrial. There are several transportation and warehouse uses in the area due to proximity to major transportation arterials, the Port and railway.

SODO \ Lander Light Rail Station Industrial Land Uses

The map displays the SODO (South of Downtown) area in Seattle, Washington. A large black circle represents a half-mile ring centered on SODO Lander Station, which is highlighted in blue. The map shows various industrial land uses color-coded according to the legend: Heavy Sales/Service (dark red), Manufacturing/Processing (red), Marine (orange), Public Facilities/Utilities (light orange), Transportation (yellow), Warehouse (light yellow), and Outdoor Storage (pale yellow). Other land uses include Office/Flex (green), Office (light green), Research and Development (pale green), Retail (blue), Entertainment (dark blue), and Retail/Service (light blue). The map also shows transit lines: SODO Busway (black line) and Link Light Rail (blue line). Major streets labeled include S Massachusetts St, S Hanford St, S Horton St, S Hinds St, Spokane St, West Seattle Hwy, S Forest St, S Stacy St, S Walker St, S College St, S Holgate St, S 1st Ave S, S 3rd Ave S, S 4th Ave S, S 5th Ave S, S 6th Ave S, S 7th Ave S, S 8th Ave S, S 9th Ave S, S 10th Ave S, S 11th Ave S, S 12th Ave S, S 13th Ave S, S 14th Ave S, S 15th Ave S, S 16th Ave S, S 17th Ave S, S 18th Ave S, S 19th Ave S, S 20th Ave S, S 21st Ave S, S 22nd Ave S, S 23rd Ave S, S 24th Ave S, S 25th Ave S, S 26th Ave S, S 27th Ave S, S 28th Ave S, S 29th Ave S, S 30th Ave S, S 31st Ave S, S 32nd Ave S, S 33rd Ave S, S 34th Ave S, S 35th Ave S, S 36th Ave S, S 37th Ave S, S 38th Ave S, S 39th Ave S, S 40th Ave S, S 41st Ave S, S 42nd Ave S, S 43rd Ave S, S 44th Ave S, S 45th Ave S, S 46th Ave S, S 47th Ave S, S 48th Ave S, S 49th Ave S, S 50th Ave S, S 51st Ave S, S 52nd Ave S, S 53rd Ave S, S 54th Ave S, S 55th Ave S, S 56th Ave S, S 57th Ave S, S 58th Ave S, S 59th Ave S, S 60th Ave 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R&D Uses in SODO

The City's Industrial Lands Report defines R&D as jobs and businesses that relate to studying processes and actively developing new products and methods of production. These activities are meant to improve future prospects for growth and competitiveness. Currently, the City of Seattle Zoning Code allows C.5 Laboratory, R&D in all industrial zones. In its current form, the Seattle Municipal Code section 23.84A.024 defines this use in the following way:

“Laboratory, research and development” means a use in which research and experiments leading to the development of new products are conducted. This use may be associated with an institutional, clinical or commercial use. This use includes but is not limited to the operation of a laboratory subject to any level of biosafety containment standard described by the U.S. Department of Health and Human Services, Biosafety in Microbiological and Biomedical Laboratories, current edition. Space designed for this use typically includes such features as floor-to-floor ceiling heights of at least 14 feet to accommodate mechanical equipment, and laboratory benches plumbed for water service.

This definition includes references to the economic purpose of the space as well as its physical needs but does not provide a list of examples of eligible users. If a goal is to attract a particular niche industry or building type, the City may consider further defining the types of R&D that align with economic development strategies for the area. OED's Industrial Development District pilot program may result in concepts that will help define innovative eco-industrial type uses that OED and other cities are trying to attract. Examples of desired industries and permitted uses should be provided in the definition. Regulatory barriers, whether real or not, can deter new and expanding companies. Companies will likely not consider locations where they may not be permitted or where it is unclear if their use is permitted by right.

NAICS-based definition. The North American Industry Classification System (NAICS) defines economic activity by industry at varying levels of detail. These categories are used for tax reporting purposes that aid in defining the size and scale of particular business types and industries. Four main categories encompass R&D activities in NAICS, including:

- Testing Laboratories 541380
- Research and Development in Biotechnology 541711
- Research and Development in the Physical, Engineering, and Life Sciences (except Biotechnology) 541712
- Research and Development in the Social Sciences and Humanities 541720

Within each of these categories, a variety of more detailed subcategories exists that encompass a broad range of business types (**Exhibit 18**). All of these R&D uses could arguably fit within the current zoning code definition. R&D uses that align well with the regional economy and existing uses in the area are highlighted.

The following table of R&D uses is categorized by NAICS category, with appropriate and/or desirable R&D industries highlighted in grey.

Exhibit 18. NAICS List of Research and Development Subcategories

NAICS	Description		
54171	Research and Development in the Physical, Engineering, and Life Sciences		
541711	Research and Development in Biotechnology		
	<i>Biotechnology research and development laboratories or services in:</i>		
	Botany	Entomology	Industrial research
	Agriculture	Environmental science	Medical sciences
	Bacteriology	Food science	Physical sciences
	Biology	Genetics	Veterary sciences
	Chemical sciences	Health sciences	Protein engineering
	<i>Research and experimental development laboratories:</i>		Recombinant DNA
	Cloning	Nanobiotechnologies	
	DNA technologies	Nucleic acid chemistry	
541712	Research and Development in the Physical, Engineering, and Life Sciences (except Biotechnology)		
	<i>Research and development laboratories or services:</i>		
	Agriculture	Environmental	Industrial
	Bacteriological	Experimental farms	Life sciences
	Biology	Fisheries	Mathematics
	Botany	Food	Medical
	Chemical	Forestry	Oceanographic
	Computer,related hardware	Genetics	Physical science
	Dental	Geological	Physics
	Electronic	Guided missile & space veh. engine	Veterinary
	Engineering	Guided missile & space veh. parts	Observatories
	Entomological	Health	Research inst.
54172	Research and Development in the Social Sciences and Humanities		
	<i>Research and Development Services:</i>		
	Archeological	Economic	Social science
	Behavioral	Humanities	Sociological
	Business	Language	Sociology
	Cognitive	Learning disabilities	
	Demographic	Psychology	
541380	Testing Laboratories		
	Acoustics	Forensic (except medical)	Radiation
	Assaying services	Geotechnical	Radiographic
	Auto. proving and grounds	Hydrostatic	Radiographing
	Biological(except medical, vet.)	Industrial	Radiography
	Calibration and certification	Laboratory(except medical, vet.)	Radon
	Electrical	Mechanical	Seed
	Electronic	Metallurgical	Soil
	Environmental	Non-destructive	Thermal
	Film badge (i.e., radiation)	Pollution (except auto emission)	Vibration
	Fire insurance underwriters'	Product	X-ray inspection serv.
	Food	Radiation dosimetry (i.e., radiation)	

Exhibit 19 documents the types of R&D space and operations near the station and throughout the Duwamish MIC.

Exhibit 19. R&D Space and Operations, Duwamish MIC, 2011



Redevelopment Feasibility

Improvement values illustrate levels of investment and inform estimates of redevelopment costs at specific sites. When improvement values are low (which means costs to remove existing buildings are low), barriers to redevelopment may be easier to overcome. However, this does not take into account economic activity occurring on a site even though the building improvements on the parcel may be low in value. This is the case for many industrial areas such as SODO.

Exhibit 20 represents the redevelopment potential for property in the vicinity of the station, ranked from low to high. Generally, the greater the improvement value is on a property, the less likely it is that it will be redeveloped. The area within a half mile of the Lander Station has a significant number of parcels with assessed improvement values less than \$100,000.

Exhibit 20. Redevelopment Feasibility Ranking, North SODO Study Area, 2011

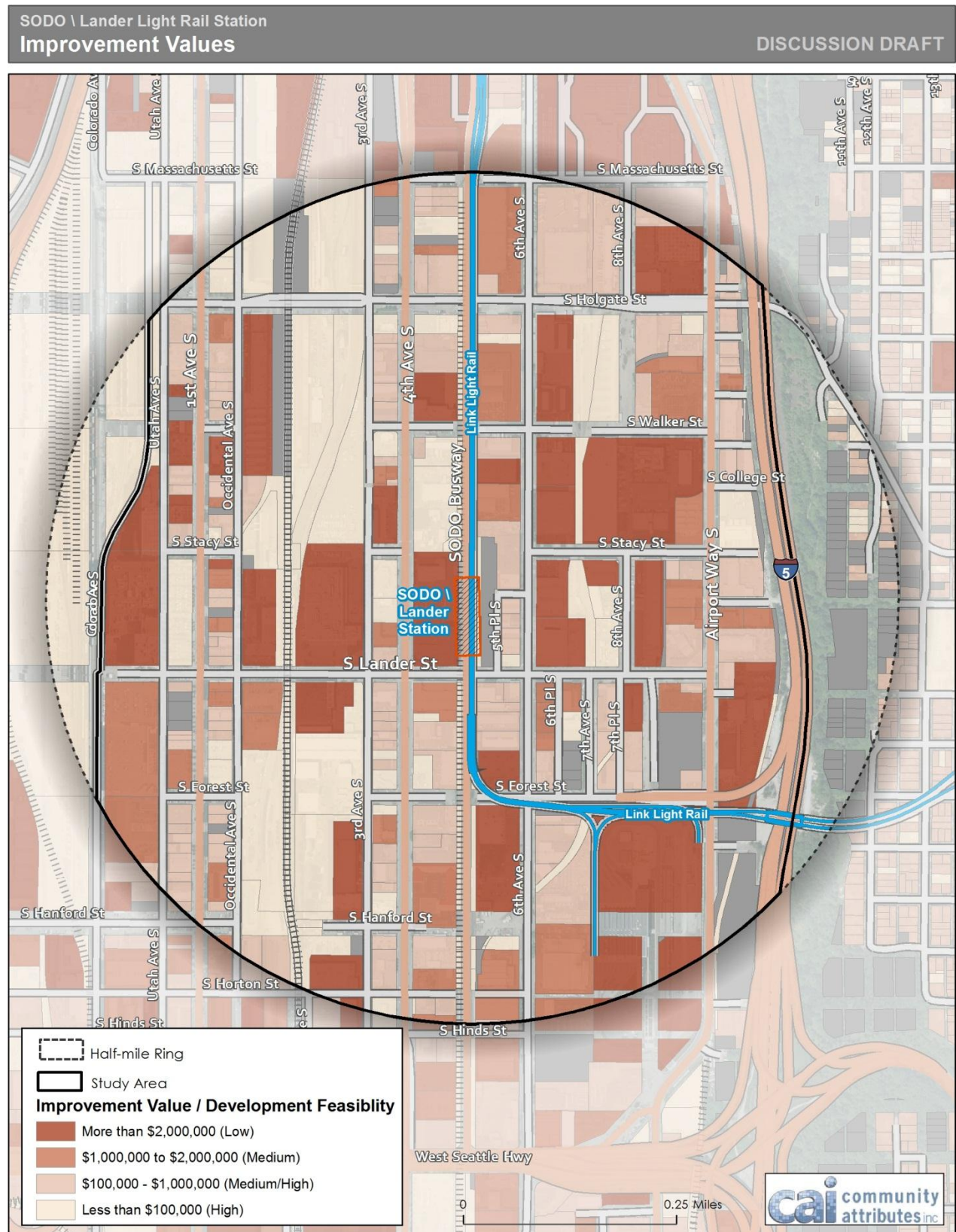


Exhibit 21 summarizes the improvement values by land use category and level of improvement. Approximately 40% of the properties within the study area have improvement values less than \$100,000. Because these parcels have limited improvements, physical barriers to redevelopment are less.

Exhibit 21. Redevelopment Feasibility Values Summary Table, North SODO Study Area, 2011

<i>Redevelopment Potential</i>	Land Area (acres)				Total
	<i>High</i>	<i>Medium/High</i>	<i>Medium/Low</i>	<i>Low</i>	
Land Use Category	Imp Value <\$100,000	Imp Value \$100,000 to \$1,000,000	Imp Value \$1,000,000 to \$2,000,000	Imp Value \$1,000,000 to \$2,000,000	
Heavy Sales/Service	0.37	10.02	7.58	3.62	21.59
Manufacturing/Processing	0.50	10.23	11.40	7.27	29.39
Office	-	0.26	2.90	31.22	34.38
Outdoor Storage	23.79	-	-	-	23.79
Parking	18.15	-	-	6.71	24.86
Public Facilities/Utilities	8.99	0.21	0.81	6.99	16.99
Retail/Service	8.06	25.65	9.54	2.37	45.62
Transportation	70.44	2.31	-	22.81	95.56
Vacant	2.85	5.74	4.22	-	12.81
Warehouse	11.39	16.51	11.97	17.83	57.70
Total	144.52	70.94	48.40	98.82	362.68
Percentage of Study Area	40%	20%	13%	27%	100%

Source: King County Assessor, 2011, Community Attributes Inc., 2012.

COMPATIBILITY OF EXISTING ZONING WITH INDUSTRIAL USES

The following section provides further evaluation of existing zoning compatibility with industrial user needs.

Existing Zoning

Currently, office uses are limited to 10,000 s.f., in areas zoned IG1 and 25,000 s.f. in areas zoned IG2. The square footage limitation in both districts limits office development. Research and Development uses, which can cover a broad range of industries, (see **Exhibit 21**) are permitted without limitation in both the IG1 and IG2 zoning districts.

Building types that house R&D activities include traditional office buildings as well as Flex/Tech spaces. Existing buildings in the Study Area may be considered Flex/Tech space that can be utilized by both R&D users and traditional office users. **Exhibit 22** provides a breakdown of typical industrial buildings, including flex buildings. This breakdown does not represent all building types in SODO, but provides a high level understanding of industrial building types.

Exhibit 22. Industrial Building Type Summary, North SODO Study Area, 2005

Primary Type	Building Type					
	Manufacturing	Warehouse			Flex	
			Distribution			
Sub-type/ Special Purpose	General Purpose	General Purpose Warehouse	General Purpose Distribution	Truck Terminal	General Purpose Flex	Service Center/ Showroom
Size (sf)	Any	50k+	50k+	20k+	20k+	<150k
Clear Height (ft)	10+	16+	16+	12-16	10-18	15-25
Loading Docks	Yes	Yes	Yes	Cross-dock	Yes	Yes
Door-to-Square-Foot Ratio	Varies	1:5k-15k	1:3k-10k	1:500-5k	1:5k-15k+	1:10k
Office Percentage	<20%	<15%	<20%	<10%	25-100%	30-40%
Divisibility (Smallest suite . sf)	Varies	15k+	50k+	10k+	5k+	2k+
Curb Appeal	Low	Low	Low	Low	High	High
Automobile Parking Ratio	Varies	Low	Low	Varies	High	High
Primary Use	Manufacturing	Storage, Distribution	Distribution	Truck Trans-shipment	R&D, Storage, Office, Lab, Retail, Light Manufacturing	Showroom, Storage, Light Manufacturing
Sub-Sets	Heavy, Light Manufacturing	Bulk Warehouse, Cold/Refrigerator Storage, Freezer Storage, High-Cube, Self Storage, Bonded	Overnight Delivery Services, Air Cargo	Garden Office, Incubator, Tech	Shallow-Bay	

Source: NAIOP Industrial Building Types Report, 2005.

Flex/Tech space is generally low rise space that can be easily converted for both office users and R&D users. Current zoning allows for small footprint office uses to locate in such buildings. R&D businesses may also locate in such spaces

without limitations on overall square footage. If the desire is to attract smaller office uses and R&D uses, land use and zone changes may not be warranted. If the City desires larger office users, following the Starbucks example, limitations may be removed to allow larger office developments. One strategy to allow more office than what is typically allowed in an industrial area is through the use of an overlay zone. An overlay zone could accommodate additional office and recognize the unique mix of uses and the City's desire to achieve multiple policy goals in the area.

First and Fourth Avenue Retail

Current zoning regulations allow retail uses along the 1st and 4th Avenue corridors with limitations on overall square footage. Retail has grown in the 1st and 4th Avenue Corridors but limits drinking/eating establishments to 3,000 square feet and limits overall size. Current regulations allow "Sales and Services, General" which encompasses a broad spectrum of retail types. **Exhibit 23** summarizes the zoning and retail size restrictions for both corridors.

Exhibit 23. First and Fourth Ave Retail, North SODO Study Area, 2012

Retail Location	Zoning	Sales and Services		Drinking	
		General	Entertainment*	Establishment	Restaurant
1st Ave	IG2	10,000 sq. ft.	10,000 sq. ft.	3,000 sq. ft.	5,000 sq. ft.
4th Ave	IG1	25,000 sq. ft.	10,000 sq. ft.	3,000 sq. ft.	5,000 sq. ft.

*Entertainment uses are limited to specific types of facilities depending on zoning classification

Source: Seattle Municipal Code, 2012.

The size limitations placed on retail in both IG1 and IG2 allow for a broad mix of retail types, but generally limit big box and discount retailers from entering the area. The following chart (**Exhibit 23**) provides examples of retail uses and estimates within the current size limitations for IG1 and IG2 zoning districts.

The following table illustrates typical retail sizes for common retail uses. The first column lists common retail uses, the second column illustrates the typical size and the third column represents whether or not the use would be permitted in the IG1 or IG2 zoning district.

Exhibit 24. Retail Gross Square Feet Examples, North SODO Study Area, 2007

Retail Type	Typical Size (G.S.F.)	Permitted Use
Big Box Discount Stores (Target, Costco, etc...)		
Department Store		
Supermarkets (Safeway, Albertsons, etc...)	>25,000	Neither
Furniture		
Electronics		
Home décor		
Hardware/Home improvement		
Art Supplies	10,000 - 25,000	IG2
Drug stores (Rite Aid, Walgreens, etc...)		
Office Supplies (Office Depot, etc...)		
Grocer (PCC, Trader Joe's, etc...)		
Boutique Retailers		
Restaurants/cafes		
Convenience store		
Apparel	<10,000	IG1, IG2
Fast food		
Auto supplies/car-care		

Source: Trade Dimensions International Inc, 2007.

Concentrations of retail are especially evident along 1st Avenue, where retail uses are prevalent. Based on the existing inventory and location of retail along the 1st Avenue corridor, zoning changes are not likely needed to provide for retail uses, unless there is a need/desire to rezone 4th Avenue from IG1 to IG2 in order to ‘match’ the scale of retail allowed on 1st Avenue (10,000 square feet) to that of 4th Avenue (25,000 square feet). Exceptions to size limitations are permissible under current zoning regulations. Both areas have the same limitations on restaurants, entertainment and drinking establishments.

To ensure that future retail is concentrated on 1st and 4th Avenues, additional code language may be considered to require that all retail in IG zones front these thoroughfares. Zone changes are not needed at this time as industrial zoning districts are flexible and the presence and success of key retailers are located in the district already, indicating land use changes are not an impediment to retail at this time. The existing limitation of 25,000 square feet to all retail in the area is appropriate to avoid additional big box uses.

R&D TRENDS AND OUTLOOK

Market Demand for R&D

The following is based upon CB Richard Ellis (CBRE) industry outlooks, secondary research and interviews with limited real estate industry experts on the future demand for R&D.

Commercial Real Estate Outlook

Commercial real estate trends for industrial and Flex/Tech space by CBRE show that vacancy rates within the close-in Seattle market are low. Flex/Tech space vacancy rates in the fourth quarter of 2011 were below one percent. Vacancy rates in other parts of the Puget Sound market are substantially higher for flex tech and industrial space, suggesting a higher demand for close-in Seattle space (**Exhibit 25**). During the last four quarters of 2011 Flex/Tech space experienced positive absorption while net absorption for Warehouse/Manufacturing/Business Park space was negative.

Exhibit 25. Commercial Real Estate Outlook, North SODO Study Area, 2011

Market	Building SF	Total Vacant	Total Vacancy %	Direct	Last 4 Qtrs Net Absorption
				Asking Rate (NNN PSF/Mo)	
Seattle Close-In	59,580,510	2,215,160	3.70%	\$0.55	(111,386)
Ware/Manuf/Bus Pk	57,894,659	2,209,186	3.80%	\$0.55	(113,653)
Flex/Tech	1,685,851	5,974	0.40%	\$0.75	2,267

Source: CB Richard Ellis Puget Sound Industrial Report 4Q, 2011.

Real Estate Stakeholder Perspectives

Building and Location Characteristics Necessary for R&D

To understand demand for R&D, it is important to understand the specific characteristics R&D users require in a site in order to assess growth trends. Based on stakeholder input, R&D is expected to grow in the Puget Sound region over time; however in the short-term, growth may be slow.

- R&D users need office space, parking and prefer flex buildings. They often require expensive and complicated tenant improvements.
- Telecommunications, software and gaming users have varying needs for heating and ventilation. Some require above-standard mechanical systems for heating, ventilation and air conditioning.
- Although currently vacant, there are R&D sites available by the stadiums.

Existing R&D hubs (competition)

- The types of R&D users located in the Puget Sound region are telecommunications, software, life science and biomedical users.

- Existing R&D hubs include South Lake Union and Pioneer Square.

R&D's Future in SODO

- One stakeholder mentioned SODO is well-positioned for R&D due to the presence of midrise buildings, whereas another explained that infrastructure and enhanced mechanical needs will require demolition to attract R&D users. R&D space also requires a larger amount of parking space than typical office and warehouse uses and the lack of parking and amenities in North SODO will pose a challenge to R&D users.
- In general, real estate experts are optimistic of SODO's growth prospects and attribute a lack of growth in the area to the global financial crisis. This contradicts insights from other businesses interviewed in the area (included in **Appendix B** of this report) which attributed the lack of growth to the restrictive zone changes in 2008. Due to timing of the new regulations, it is difficult to isolate the impact of the policy change in light of the recession.
- To support R&D, real estate experts noted that the zoning should be relaxed to allow the types of buildings that R&D requires. (This may reflect confusion in the industry over what is actually allowed).
- Office and retail are appropriate for SODO, but none of the real estate experts recommended residential at this time.
- Environmental fields or manufacturing R&D are appropriate. The bio-tech research cluster will remain in South Lake Union.
- Experts noted that Seattle's reputation as a technology-based economy positions the city to attract R&D businesses. Several stakeholders mentioned the economy is shifting toward intelligence-based industry and manufacturing will continue to move to less expensive overseas locations. Based on this perspective, interviewees explained that Seattle is too costly to manufacture products and Seattle's reputation for corporate headquarters and R&D are a better economic development strategy than promoting manufacturing.

Industry Perspectives

Based on limited stakeholder interviews (full summaries are included in **Appendix A**), there were generally two viewpoints regarding the future of SODO. One sentiment is that industrial type buildings and operations in SODO are crucial to the region's economy and have historic significance. Uses that have emerged in the last decade or so should be limited in deference to industrial users, especially in favor of freight mobility. Minimizing traffic and conflicts with vehicles and pedestrians are priorities. The second viewpoint is that some land owners and industry leaders would like additional flexibility in resale or reuse of their property or building and would like to accommodate traditional office and commercial uses and one stakeholder even cited residential, although most stakeholders felt residential is not feasible due to environmental remediation concerns.

CASE STUDIES

Case study examples from other cities can provide valuable insights into approach, tactics and outcomes of policy decisions. Although each case study differs in context and policy goals, they offer insight into land use compatibility challenges, tools and impacts for reference. Each of the three example cities were faced with land use strategy decisions relating to preserving or transitioning industrial uses. Minneapolis and Vancouver favored flexibility toward nonindustrial uses in key locations, while accommodating existing industrial users. In the Minneapolis case study, transit was the driving force behind allowing a transition to multifamily residential or mixed use within ½ mile of station areas. In the Baltimore case, a policy decision was made to protect industries that were reliant on deep water port access and designate more shallow draft waterfront areas for redevelopment. Each city performed analyses of tradeoffs, pursued regulatory tools to balance priorities and continues to evaluate impacts.

Following are case studies from Minneapolis, Minnesota; Vancouver, British Columbia; and Baltimore, Maryland. An overview of the original situation, actions taken and their outcomes and impacts provide examples to consider.

City of Minneapolis Hiawatha Light Rail Line and Industrial Living Overlay District

Original Situation

In 1999, the City of Minneapolis rewrote its 1963 zoning code. Key elements in the update included: a pedestrian-oriented overlay district to strengthen the pedestrian character of neighborhoods, an industrial living overlay district to encourage rehabilitation of vacant industrial buildings and density bonuses to promote mixed use buildings with residential on upper floors and commercial or office on the street level. New transit station areas were also established throughout the city within a half mile radius of light rail stations to allow for multifamily and mixed use. The Hiawatha transit line began service in 2004, connects downtown Minneapolis to the Mall of America and runs through a primarily residential area.

Actions Taken

The Industrial Living Overlay District (IL) was applied to areas within the half-mile radius of light rail stations along the Hiawatha line to encourage the rehabilitation and reuse of existing industrial structures and to provide for limited residential and retail uses in the



I1 and I2 Industrial Districts where such uses are compatible with other uses in the area. Several other non-industrial uses are allowed in the IL including retail, office and entertainment. In 2006, the City conducted a study entitled the *Industrial Land Use Study and Employment Policy Plan* to identify areas where industrial should be expressly protected. Industrial land uses were protected based on criteria such as the size of the parcel, proximity to transit routes, customers and labor force. The study recommended that rezoning decisions consider impacts on living-wage jobs, jobs associated with less than a four-year degree and employment density.

Outcomes and Impacts

Since service began in 2004, the Hiawatha line has been a major success. A variety of development changes have also taken place. The Metropolitan Council reports the impacts listed below in relation to the transit line but acknowledges they may have resulted regardless.

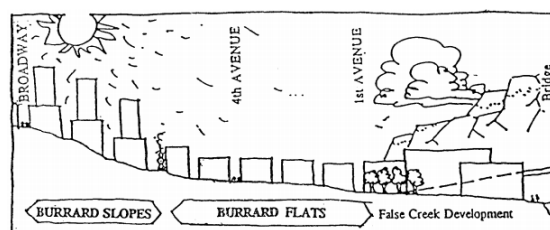
- By 2008, about 12,400 new housing units near the line were occupied or under construction.
- Commercial and retail developments sprouted at both ends and along the corridor between 2000 and 2005.
- Ridership in Hiawatha's full year of full operation exceeded pre-construction estimates by 58.2 percent.

- Property values along the line increased at a higher rate than citywide averages according to the Minnesota Department of Revenue.

Vancouver, British Columbia Industrial and Mixed Use Zones

Original Situation

The City of Vancouver was faced with the challenge of balancing industrial retention with real estate market pressures for residential and commercial development. The City desired to plan for global economic restructuring and rethinking around the jobs-housing balance by allowing more housing.



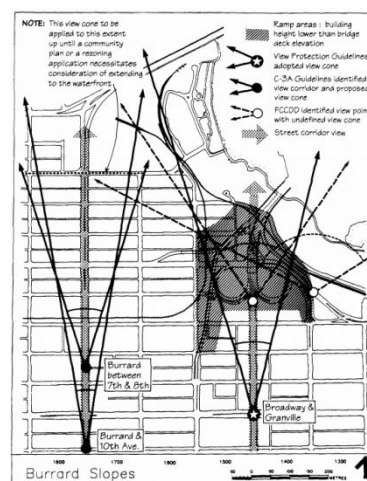
Actions Taken

In 1995, the City of Vancouver adopted the *Industrial Lands Strategy* to guide future land use decisions and retain most of the city's industrial land base for industries and service businesses. The overall intent of the *Industrial Lands Strategy* is to retain industrial land. However, the City recognized the evolving nature of industrial uses and service uses and the need for flexibility. A result of the *Industrial Land Strategy* was the creation of two mixed use districts that establish degrees of separation based on compatibility of uses with residential development. Most light manufacturing uses in mixed use buildings are not allowed by right, however the level of compatibility can be improved through a performance evaluation system based on the specific uses, scale and design of the proposed use or the existing adjacent use.

Outcomes and Impacts

Evaluations of the outcomes and impacts of the mixed use districts indicate an increase in service and light industrial jobs at the same time as limited new housing development. Additional findings for the Burrard Slopes IC District particularly include:

- Low vacancy rates: industrial (below 1%) and commercial (approximately 3%).
- A 13% increase in the number of jobs in the area (1993 to 2001).
- A 30% increase in non-residential floor space (1996 to 2006).
- A 28% increase in building improvement values (1996 to 2006).
- A moderate pace of development activity with six new Comprehensive Development (CD-1) mixed use.
- Developments approved through the Interim Policies (1993 to 2007) and a high level of reuse of the current building stock.



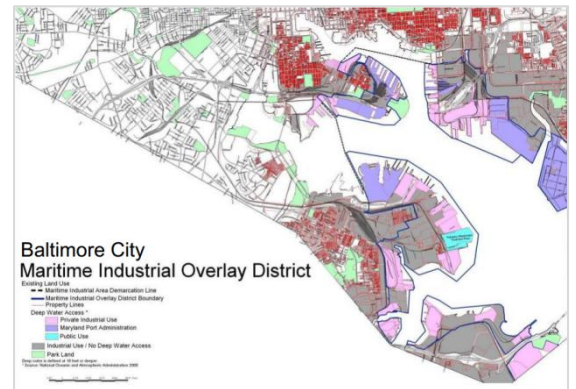
Baltimore Maritime Industrial Zoning Overlay (MIZOD)

Original Situation

In the 1990s, port area industrial lands were being encroached upon by mixed use developments. Developers were effectively rezoning land to non-industrial uses through the use of Planned Unit Developments (PUDs). The decline of industries that had historically occupied Baltimore terminals, combined with growth in residential and commercial real estate, threatened to drive the Port toward a few specialized activities, such as container handling, and away from its traditional bulk cargo and manufacturing base. The City was concerned that redevelopment at this pace would reduce the port-supported manufacturing operations and the number and quality of blue collar jobs.

Actions Taken

In 1996, a Port Land Use Task Force was created by Governor Glendening to examine strategies for better use of Port-controlled lands and incorporate them into a comprehensive redevelopment strategy. In 2004, the City of Baltimore, supported by industrial and labor representatives, developed a position paper calling for a maritime industrial overlay to curb the rapid redevelopment of non-industrial uses to justify infrastructure investments and channel maintenance in the harbor. The MIZOD was adopted in 2004 and protects frontage land along the harbor with 18 feet of draft or more with railroad or highway access. The MIZOD protects deep water access for current and future freight use. As of 2012, the City is rewriting its zoning code and maritime zoning will become the underlying designation and no longer sunset.



Outcomes and Impacts

The City of Baltimore and Baltimore Development Corporation produced the “Economic Impact Assessment of the MIZOD in Baltimore” in 2010. Findings include:

- The continued use of industrial land for Port-based activities was in the long-term interest of the City. Although property premiums of waterfront redevelopment were considered, this was not substantial enough to make up for the lost economic benefits from losing industrial land.
- The City had also prioritized job opportunities for individuals who have neither the specialized skills offered through a college education nor the years of training required to enter the skilled pool of unionized port workers. Manufacturing at the various industrial plants supported by the MIZOD provides this opportunity.
- As of 2010, Baltimore kept its unemployment rate below eight percent at a time when the nationwide average was almost two points higher.

FINDINGS

Living Wage Jobs

- Living wage jobs are found across all sectors. Industries with the highest share of living wage / modest education occupations are Construction, Wholesale, Transportation and Utilities.
- As a percentage of total employment, the Utilities industry employs the highest percentage of living wage jobs. Eighty percent of Utilities jobs pay a living wage and 36% of these jobs are related to an associate's degree or less.
- Seventy-five percent (75%) of the workforce in the Manufacturing industry earn a living wage; 23% of all Manufacturing jobs that pay a living wage are related to an associate's degree or less.
- As a percentage of total employment in the Retail industry, it has the lowest percentage of jobs that pay a living wage at 27%; 20% of which are related to an associate's degree or less.

Employment Density

- The SODO station is indeed located in a relatively low employment density area; as a result, boardings are the lightest at this station. Many employees commuting to SODO currently live outside the light rail service area. Based on industry interviews, transit connectivity to the commuter line and local bus service and pedestrian access in SODO are all impediments to transit use.
- Other than offices, which is a constrained land use currently, higher employment density uses that fit existing land use compatibility include sales and service of heavy equipment, and manufacturing and processing, and retail. However, this is a relative statement. These densities are not transit-supportive densities, but they rank higher among industrial land uses.
- Lower density employment uses include Storage, Warehouses and Transportation.

Real Estate and Land Use

- Because of SODO's general desirability as a location, all uses appear to want to be there. Big box, grocery stores, general commercial and residential all would be interested in development prospects in SODO were they allowed.
- Professional, Government & Social Services and Retail/Services/Accommodation are not generally compatible with industrial land uses.
- The land in the area is well utilized, but the users of the industrial land, however, do not have high employment density per acre of land. The land is utilized for storage and loading and handling, not for desks and offices.

- Relatively high office vacancies elsewhere in the city suggest that the area is not “needed” for office space at this time.
- Flex/Tech, which may be associated with R&D, typically consists of a single story warehouse building that is flexible and can be used for light manufacturing, distribution, storage, offices or a combination of these. R&D office space (Flex/Tech or warehouse space) is experiencing low vacancy rates within Seattle (1%).
- Research and Development (R&D) uses are permitted in both IG1 and IG2 without limitation. Research and development uses cover a broad range of industries and operations that may use light industrial type buildings or office space depending on the user and industry.
- Redeveloping land in SODO would generally be less expensive than other parts of the city, due to lower demolition and disposal costs (without considering contamination and environmental cleanup).
- Retailers in the area are not transit oriented. Furniture and home furnishings sell large products, requiring cars and distribution. Retailers are located in SODO for the large amount of building space available to store their products – not for the market proximity.
- Currently, retail is allowed anywhere in the industrial zone. Retail uses are permitted on a limited basis and are currently concentrated along 1st Avenue, with a smaller concentration along 4th Avenue. Size limits on retail are greater on 4th Avenue (10,000 square feet) than 1st Avenue (25,000 square feet).
- Stakeholders cited the current atmosphere at the City is anti-business and that some businesses and developers are waiting to pursue projects until a shift in administration takes place. Supporting a business friendly environment is important for local industry growth regardless of land use type.

Recommendations

Recommendations to consider include:

Land Use

- An industrial mixed use overlay for areas close-in to the station would allow flexibility for additional office while allowing existing industrial uses. This would match the City's land use strategy to policy objectives to support living wage jobs and transit-supportive density.
- Consider an industrial mixed use overlay district for the study area that removes size limitations for office uses while maintaining the industrial character of the area. Relevant cases studies are listed below and described in more detail in **Appendix D**.
 - Vancouver, B.C. created a compatibility matrix for dissimilar uses. The matrix allows the City to zone specifically for a target mix of uses that best retains jobs and promotes healthy living.
 - The Hiawatha Light Rail Corridor Overlay in Minneapolis allows additional flexibility in an industrial area that would not normally allow residential. Due to the presence of light rail in the area, it is more desirable for residential uses and merits thoughtful introduction of residential uses in this generally industrial area.
 - The Maritime Industrial Zoning Overlay District in Baltimore (MIZOD) was used to protect industrial uses that use or need deep water access. As waterfront residential and commercial development encroached on maritime industrial uses within the city, the area needed a mechanism to ensure waterfront access for maritime uses.
- No regulatory changes are necessary at this time to allow R&D. Although R&D uses are permitted, there is a lack of clarity in the zoning code, which may serve as an unwanted regulatory barrier. If the City desires to promote any particular industries that engage in R&D, the City's economic development and recruitment strategy may further define and promote desired industries and elaborate the definition of R&D in the zoning code accordingly.
- To continue to concentrate retail to key locations, adjust Code language to only allow retail to front 1st or 4th Avenues. Currently, retail is allowed anywhere in the industrial zone.

Infrastructure, Transportation and Circulation

- Develop a North SODO transit oriented development master plan. A TOD master plan could include a transit-supportive land use plan, urban design standards, infrastructure plans, circulation and regulatory updates, streetscape improvements, pedestrian improvements, incentives, and street design hierarchies, to concentrate density and retail to key locations.
- Continue to partner with SoundTransit and employers and identify potential transit-station and other public space improvements to enhance place and amenities.

- Both San Francisco's Better Streets Program and Madison Avenue in Cleveland, OH developed guidelines to buffer pedestrians from industrial uses and are described in **Appendix D**.
- Increase outreach with employers in the area to determine barriers to transit use and ways to increase ridership. Consider partnering with employers to offer shuttle service during peak hours from Lander Station throughout the employment loop.
- Continue to analyze infrastructure needs and capital improvement plans including: road upgrades and improvements, stormwater management, pedestrian-walkway improvements, signage, sidewalk, curb, gutter and landscape improvements, service capacity analysis for utilities and sewer and a Traffic Impact Analysis to project impacts of increased density.

Economic Development and Recruitment

- Conduct workshops or informational sessions to share the data and analysis from this report.
- Consider further defining desired R&D uses based on economic industry alignment with the City's jobs and industry strategies.
- Consider conversions of buildings that may be appropriate for office uses.
- Perform an economic assessment of the area considering industry growth projections and niche market opportunities.
- Develop an image for the area to shape and evolve perceptions. Promoting the types of uses that are allowed in SODO and promoting the Industrial District pilot program to key audiences will elevate interest in the area and improve perceptions.
- Identify existing available Flex/Tech/R&D space and market available sites and buildings to prospective users and the real estate community.
- Encourage the IDD pilot program to prioritize employment density and living wage jobs as project criteria for SODO concepts.

Education

- Attracting and retaining living wage jobs and the companies that employ them is not only a function of land use, but involves partnerships with industry, education, workforce development programs and neighborhoods. Training programs, industry outreach and support and transit access are all important to gaining and retaining living wage jobs.
- Encouraging training for occupations that are not anticipating growth is a vulnerability of jobs strategies. Aligning educational programs with long-term industry needs can improve real job prospects for workers.
- Living wage jobs are more often associated with higher levels of education, such as a bachelor's degree. Education strategies are just as important if not more so than recruitment and attraction strategies to ensure Seattle's workforce is both competitive and economically self-sufficient.

APPENDIX A. INDUSTRY INTERVIEWS

Organization	Category	Representative
1. Process Heating Company	Manufacturing/SODO Business Association	Mike Peringer, VP of Marketing
2. Alaskan Copper	Manufacturing	Doug Rosen, VP of Corporate Development
3. Morel Industries (formerly Ballard Brass and Aluminum)	Manufacturing, durable goods	Steve Morel, Owner
4. MacMillan Piper	Transportation	John Ohlund, Vice President
5. Grand Central Bakery	Wholesale	Gillian Allen-White, General Manager
6. American Life Inc.	Investment/real estate development/law	Henry Liebman, President & CEO
7. CBRE	Real estate services	Brian Clapp, Broker
8. Kidder Matthews	Real estate services	Jim Kidder, Broker

APPENDIX B. INDUSTRY PERSPECTIVES

North SODO is a diverse area with a long history of industrial activity. There is an eclectic mix of businesses located in North SODO, with a concentration of retail establishments along 1st and 4th Avenues and a variety of other businesses such as warehouse establishments, a trapeze school, night clubs, one of only few centralized exam stations for US customs, wholesale baking companies, data storage centers, travel agencies, national banks, glass artists, traditional industrial uses and restaurants among others.

Many businesses have operated in SODO since their inception, while an influx of retail, entertainment and commercial office space has arrived in the last ten to fifteen years. The following summary is based on a limited number of stakeholder interviews conducted with business owners and tenants during the fall of 2011. These perspectives do not represent consensus.

General Observations

- **SODO has changed drastically in the last ten to fifteen years.** Since the King Dome came down in 2000 and the two new stadiums were built, land values increased drastically, which is the impetus for non-industrial land uses.
- **Industrial growth is hampered by escalating property values.** For one stakeholder whose company prefers to purchase rather than lease space, higher land prices motivate them to look to expand in Tacoma where land prices are significantly less and because Tacoma is more blue collar-oriented and not conflicted with real estate development.
- **The majority of businesses are not expecting to grow in the next 2 years.** Most stakeholders mentioned that their business growth was dependent on market conditions. Some stakeholders felt that expansion is not possible because of the limitations in the availability and price of land in the North SODO area. The major constraint on growth noted by most businesses was the effect of the market on businesses. Most businesses expressed that the most important factor that affected their potential was the overall health of the economy.
- **National food prices will affect food niche in North SODO.** For stakeholders involved in food industry, transportation, food prices and external ingredient costs will all affect prospects for growth. This is not unique to SODO but due to a small cluster of food-related operations, these issues will affect SODO in particular.
- **Utility Rates are high and going up.** The rising cost of utilities was mentioned by several stakeholders in the area. One interviewee mentioned Seattle was once known as a “low energy city,” but is losing that advantage. Certain operations may be especially affected, particularly fish warehousing.

Quality and predictability of power is also a concern, and frequent outages are not uncommon.

- **The future of manufacturing is debatable.** In line with national discourse on the subject, for some interviewees, manufacturing operations will continue to migrate to low wage countries and emerging economies. This perspective encourages an evolution of the area in light of the inevitable decline of manufacturing operations. Others feel manufacturing is a critical component of the local and national economy, of which Seattle is well-positioned for continued growth. One stakeholder felt that the future of manufacturing will depend on its ability to innovate and allowing flexibility and encouragement for R&D is important but must ‘fit’ with the existing area.

Regulatory Environment

- **The regulatory environment in Seattle is anti-business.** Stakeholders cited a long history working with the City but emphasized shortcomings of the current leadership. One stakeholder felt it is easier to operate in Tacoma because of its stronger blue-collar culture and identity and the utilities are governed by a utility board. An interviewee observed that out of the 200 million that the car tabs (new fee imposed in 2011) generate, only \$500,000 is dedicated to freight, a disappointment for some SODO businesses whose industry is to move goods.
- **Taxes are too high and the City offers no tax incentives for businesses.** Port taxes, B&O tax, sales tax and no incentives or tax credits result in limited interest among business to move in. One stakeholder mentioned no new manufacturing company has moved into SODO in 20 years.
- **Expansion is difficult because of the cumbersome building permitting process.** Business owners attempting to expand their businesses felt that it was difficult to expand as a result of the long permitting process.
- **Land use regulations affect business decisions.** Businesses cited land use regulations and the changing landscape of North SODO as a major factor that will continue to affect business decisions. Industrial users desire long-term predictability to continue their commitments to operating in SODO whereas some property owners prefer more flexibility to expand or redevelop.

Employees and Job Types

- **The number of employees among North SODO businesses varies from 5-50.** The number of employees varied depending on the type of operation present. Warehouse uses had significantly more employees with approximately 50 employees, whereas real estate services and retail establishments had fewer employees with a range of 5-10. Employee turnover for longstanding companies was minimal; one stakeholder

mentioned the average tenure in the office was around 18 years. However, due to growth and retirements, younger, less skilled employees are being hired and trained in some cases.

- **The types of jobs present vary.** There are a variety of jobs present in the area, including office jobs which include the Jones Soda Headquarters, data storage, office space, US travel, and Bank of America operations. Other positions include retail and restaurant establishments and food catering. There are also large warehouse uses, wholesale baking companies such as Grand Central Bakery, auto repair and large scale cargo handlers.

Wages and Skills

- **Wages and skills also vary.** Businesses provide jobs that vary from general retail positions to unionized warehouse workers to professional occupations such as accountants and marketing managers. Wages range from \$11 an hour for janitorial and driver positions to management positions that command over \$80,000. (Not all firms disclosed the wages for their employees).
- **Employee skills.** Skill levels for employees vary depending on the business type. Some firms offer management training and cross-training, which contribute to skill enhancement and career path development. Skills cited include communications, physical skills such as dexterity and other trade skills. There are many jobs that require trade experience from food and baking to welding and construction. Technical skills to operate fork lifts and freight handling equipment were preeminent in one Teamster warehouse operation.

SODO's Advantages

- **North SODO's location and proximity to intermodal transportation hubs make it desirable.** Access to State Route 99, I-5 and I-90 facilitate transportation south of Seattle. Most stakeholders cited North SODO's proximity to major arterials, rail, port and major transportation nodes and facilities as a main factor in their location preference. North SODO is a desirable location that is well connected to rail service and the Port in addition to its proximity to other businesses.

One long-term business representative said that at least 400 trucks a day come through SODO and that 70% of all goods and services to Seattle come from SODO.

- **Businesses have a history in North SODO.** Many stakeholders have had businesses located in North SODO since the 1940's and 1950's and maintain a strong sense of neighborhood pride. Much of Seattle's heritage can be traced back to SODO and neighborhood identity is strong.
- **Large parcels of land attractive to specific users.** This is an advantage for businesses that require large footprint operations such as assembly and distribution, container freight or renewable energy.

SODO's Disadvantages

Zoning and Land Use

- **Downzoning in 2008 was too restrictive.** Some stakeholders noted that zoning was restrictive and needs to be revised to allow expansion, particularly north of Lander. The area north of Lander is going to be rezoned industrial-commercial, much like it is now from Holgate north. There should be higher density, more flexibility, more office room because modern businesses are not heavy industrial.

Stakeholders acknowledged that the City attempted to protect industrial by downzoning in 2008, but it has failed to do so because the demand has decreased for industrial and the density requirements are too low as modern businesses tend to not be heavy industrial. Stakeholders involved in the real estate industry expressed concerns with the restrictive nature of zoning in the area, such as limitations of allowed uses, height limitations, conditional use permitting requirements and limitations on retail. Declining demand for industrial uses is the single most important reason for businesses seeking a less restrictive zoning code. The generally restrictive nature of the zoning code was a concern for almost all businesses interviewed, as even industrial businesses expressed that expanding their existing location is restricted. However, not all stakeholders found zoning to be the main concern for businesses; some industrial users were content with zoning and the changes that were implemented to the code in 2008. One stakeholder emphasized that protecting industrial lands is a long-term strategy and that once the land use departs from industrial; it is difficult to change it back.

- **Some industrially zoned businesses felt the zoning had no effect.** Business owners that felt that their location was not desirable for the smaller café and retail uses felt the zone changes had no effect on them. The physical appearance of their locations does not attract those types of uses; the zoning is not a deterrent.

Safety and Homelessness

- **Public safety and homeless issues are important.** The large homeless population was cited as a concern because of trespassing, property damage and image issues. The area has petitioned to make SODO part of the no alcohol impact zone.

One stakeholder mentioned the impetus of the SODO Business Association was due to a string of burglaries that took place when the homeless encampments started. Problems with homelessness continue, including public urination and trespassing. Poor lighting exacerbates safety issues. Physical and sexual assault has occurred in the last six months.

Transportation and Infrastructure

- **Practical improvements are necessary.** Small businesses cited a need for street maintenance, traffic management, lights and parking to improve the area. Road maintenance, paving and stormwater management are some of the practical needs that would improve the area. Telecommunications service in SODO is poor, water and power are constantly interrupted.

The majority of businesses in SODO are small to mid-size companies; all of the 1,800 businesses in the area but 10 or 15 are small businesses that are 1-50 employees. Everything is run by small businesses, but they are overlooked, and do not have any clout. A main complaint among small businesses is the high B&O tax relative to the services rendered. Half of the businesses in the area own their own property, which is unlike any other place in the tri state area.

- **Construction affects businesses.** The aging infrastructure, poor soil quality and ever changing landscape have brought a number of construction projects to the area. Inconveniences result, including traffic interruptions, reduction in freight routes and a lack of coordination on timing and impacts between different entities including SDOT, WSDOT and the Port of Seattle. The lack of coordination is a source of frustration for businesses.
- **Transportation and circulation issues were amongst the key concerns for business owners in the area.** Traffic was a common challenge cited by stakeholders who claimed that I-90 will be more congested now with the toll and that I-5 is already unbearable at certain times of day. Circulation within SODO was also emphasized.
- **Stormwater regulations will get more stringent.** One stakeholder explained that Duwamish stormwater regulations are among the most stringent in the country and will become even more stringent as of January 1, 2013.

Impact of Lander Station and Transit

- **The majority of businesses interviewed are not open to the public.** These businesses did not cite major conflicts with the transit station, pedestrians or single use vehicles. Most of the businesses interviewed do not generate or require heavy foot traffic and are not open to the public, such as warehousing uses, wholesale and trade. Businesses that were open to the public were predominately located along 1st and 4th Avenues and tended to be retail uses, but clientele come to the area with private vehicles for large retail purchases.
- **Proximity to the Lander Station is inconsequential.** When interviewed about their proximity to Lander Station, both industrial and other industry stakeholders expressed that the station had no real benefit to their business or employees as local transit routes do not connect employees to

the commuter transit system or to jobs. A lack of parking at the station also limits its potential. Stakeholders felt the placement of the station was ‘misguided’ for an industrial area but does not create problems per se; other than it does not seem to be heavily used.

- **Bus routes are limited, rapid ride service is unreliable.** Local bus service was cited as being limited and unreliable. Local and regional bus service in and around SODO is limited and the area is not conducive to pedestrian mobility from the light rail station to employers. People who take the Sounder are going North to Downtown and although Starbucks and the School District may have some riders, most people who work in the area drive private vehicles to work.

Resolving Potential Land Use Conflicts

Given the contradictory nature of some of the input, stakeholders were asked how land use conflicts could be resolved. The following presents potential resolutions.

- **Create transition zones.** There has to be a buffer between industrial and non industrial because of noise, street uses, wide sharp turns and sidewalks where trucks cannot get around them. Dedicated freight routes are preferable.
- **Address parking needs.** Identify appropriate parking needs for light industrial employees and loading and unloading.
- **Improve signage.** People do not realize when they are driving in an alley and they are driving 40 mph creating unnecessary danger when they should be driving 20.
- **Pave and improve roads.** Roads near the Port are especially unmaintained and create circulation delays, safety hazards and deteriorate vehicles.

APPENDIX C. SEATTLE PERMITTED LAND USES

Exhibit C1. Permitted Land Uses, Seattle Municipal Code 2012

Key				
CCU	Council conditional use			
CU	Administrative conditional use			
P	Permitted			
X	Prohibited			
EB	Permitted only in a building existing on October 5, 1987.			
EB/CU	Administrative conditional use permitted only in a building existing on October 5, 1987.			
		IC	IG1 - Duwamish MIC	IG2 - Duwamish MIC
A. AGRICULTURAL USES				
A.1. Animal Husbandry		X	X	X
A.2. Aquaculture		P	P	P
A.3. Community Garden		P(14)	P(14)	P(14)
A.4. Horticulture		X	X	X
A.5. Urban Farm		P(14)	P(14)	P(14)
B. CEMETERIES		X	X	X
C. COMMERCIAL USES				
C.1. Animal Shelters and Kennels		P	P	P
C.2. Eating and drinking establishments		P	P	P
C.3. Entertainment Uses				
C.3.a. Cabarets, adult		P(13)	X	X
C.3.b. Motion picture theaters, adult		X	X	X
C.3.c. Panorams, adult		X	X	X
C.3.d. Sports and recreation, indoor		P	X	P
C.3.e. Sports and recreation, outdoor		P	X	P
C.3.f. Theaters and spectator sports facilities				
C.3.f.i. Lecture and meeting halls		P	P	P
C.3.f.ii. Motion picture theaters		P	X	X
C.3.f.iii. Performing arts theaters		P	X	X
C.3.f.iv. Spectator sports facilities		P	X(2)	X(2)
C.4. Food processing and craft work		P	P	P
C.5. Laboratories, Research and development		P	P	P
C.6. Lodging uses		CU	X	X
C.7. Medical services (3)		P	P	P
C.8. Offices		P	P	P
C.9. Sales and services, automotive		P	P	P
C.10. Sales and services, general		P	P	P
C.11. Sales and services, heavy		P	P	P
C.12. Sales and services, marine		P	P	P

Source: Seattle Municipal Code, 2012.

	IC	IG1 - Duwamish MIC	IG2 - Duwamish MIC
D. HIGH-IMPACT USES	X or CU(4)	X or CU(5)	X or CU(5)
E. INSTITUTIONS			
E.1. Adult care centers	X	X	X
E.2. Child care centers	P	P	P
E.3. Colleges	EB	X(6)	X(6)
E.4. Community centers and Family support centers	EB	P	P
E.5. Community clubs	EB	X	P
E.6. Hospitals	EB	P	P
E.7. Institutes for advanced study	P	X	X
E.8. Libraries	X	X	X
E.9. Major institutions subject to Chapter 23.69	EB	EB	EB
E.10. Museums	EB(9)	X(8)	X(8)
E.11. Private Clubs	EB	X	X
E.12. Religious facilities	P(15)	P(15)	P(15)
E.13. Schools, elementary or secondary	EB	X	X
E.14. Vocational or fine arts schools	P	P	P
F. LIVE-WORK UNITS	X	X	X
G. MANUFACTURING USES			
G.1. Manufacturing, light	P	P	P
G.2. Manufacturing, general	P	P	P
G.3. Manufacturing, heavy	X or CU(10)	P	P
H. PARKS AND OPEN SPACE	P	P	P
I. PUBLIC FACILITIES			
I.1. Jails	X	X	X
I.2. Work-release centers	X	X	X
I.3. Other public facilities	CCU	CCU	CCU
J. RESIDENTIAL USES			
J.1. Residential uses not listed below	X	X	X
J.2. Artist's studio/dwellings	EB/CU	EB/CU	EB/CU
J.3. Caretaker's quarters	P	P	P
J.4. Residential use, except artist's studio/dwellings and caretak	CU	CU	CU
K. STORAGE USES			
K.1. Mini-warehouses	P	X	P
K.2. Storage, outdoor	P	P	P
K.3. Warehouses	P	P	P

Source: Seattle Municipal Code, 2012.

	IC	IG1 - Duwamish MIC	IG2 - Duwamish MIC
L. TRANSPORTATION FACILITIES			
L.1. Cargo terminals	P	P	P
L.2. Parking and moorage			
L.2.a. Boat moorage	P	P	P
L.2.b. Dry boat storage	P	P	P
L.2.c. Parking, principal use, except as listed below	P or X(15)	X(2)	X(2)
L.2.c.i. Park and Pool Lots	P(12)	CU	CU
L.2.c.ii. Park and Ride Lots	CU	CU	CU
L.2.d. Towing services	P	P	P
L.3. Passenger terminals	P	P	P
L.4. Rail Transit Facilities	P	P	P
L.5. Transportation facilities, air			
L.5.a. Airports ^{land-based}	CCU	CCU	CCU
L.5.b. Airports ^{water-based}	CCU	CCU	CCU
L.5.c. Heliports	CCU	CCU	CCU
L.5.d. Helistops	CCU	CCU	CCU
L.6. Vehicle storage and maintenance			
L.6.a. Bus bases	CU	CU	CU
L.6.b. Railroad switchyards	P	P	P
L.6.c. Railroad switchyards with a mechanized hump	X	CU	CU
L.6.d. Transportation services, personal	P	P	P
M. UTILITY USES			
M.1. Communication Utilities, major	CU	CU	CU
M.2. Communication Utilities, minor	P	P	P
M.3. Power Plants	CCU	P	P
M.4. Recycling	P	P	P
M.5. Sewage Treatment Plants	CCU	CCU	CCU
M.6. Solid waste management			
M.6.a. Salvage yards	X	P	P
M.6.b. Solid waste transfer stations	CU	CU	CU
M.6.c. Solid waste incineration facilities	CCU	CCU	CCU
M.6.d. Solid waste landfills	X	X	X
M.7. Utility Services Uses	P	P	P

Source: Seattle Municipal Code, 2012.

APPENDIX D. ADDITIONAL CASE STUDIES

Pittsburgh's Industry District and Strip District Improvement Strategy

Relevance for North SODO: Waterfront development; industrial uses co-exist with retail

Lessons: Pittsburgh, a city known for its industrial past, has crafted specific land use policies and design guidelines to effectively buffer the industrial uses from public spaces and residential areas. Landscaping is a major component, and specific attention is given to frontages with rivers and other amenities. In the popular Strip District, food processing, manufacturing and other industrial users co-exist with high volume, regional retail attractions through coordinated circulation plans and signage.

Contact: City of Pittsburgh City Planning Department (412) 255-2200

<http://www.city.pittsburgh.pa.us/rfp/assets/river5.pdf>

http://www.neighborsinthestrip.com/nits/StripPlan_FinalDraft.pdf

Industrial Mixed Use Districts, Vancouver, British Columbia

Relevance for North SODO: Industrial zones, job retention

Lessons: Vancouver allows a range of industrial uses within the urban core, but the City has also pioneered a unique approach to mixed-use districts by drafting a compatibility matrix for dissimilar uses. The matrix allows the City to zone specifically for a target mix of uses that best retains jobs and promotes healthy living.

Contact: City of Vancouver Planning Department (604) 873-7344

Light Rail and Light Industry: San Jose and Santa Clara, California

Relevance for North SODO: Industrial zones, mass transit

Lessons: Using light rail and commuter rail to serve light industrial and commercial office uses in Silicon Valley has been largely successful, and though these nominally industrial areas are heavily served by vehicular traffic, stations allow employees of large firms to commute via transit. Though the areas are zoned for industrial use, most parcels are occupied by office, R&D, and other technology-driven uses.

Contact: Santa Clara Valley Transit Authority (408) 321-2300

Hiawatha Light Rail and Industrial Overlay Zones, Minneapolis, Minnesota

Relevance for North SODO: Industrial zones, mass transit

Lessons: Minneapolis has an Industrial Living Overlay that allows medium-density residential as conditional uses within ½ mile of light rail transit stations. Some restrictions apply, including provisions in the zoning code that limit uses in the building that would have an adverse impact on the residential use of the building. These zones are being considered for areas where light rail service has increased the desirability of residential uses in traditionally industrial areas.

Contact: Paul Mogush (612) 673-2074

The Steelyards, Boulder, Colorado

Relevance for North SODO: Industrial area and compatibility with mixed use

Lessons: The Steelyards is an indication that light industrial, office, and residential uses can mix to create a vibrant neighborhood. This new development is graced by generous public spaces and well-landscaped streets, but it is driven by the commercial spaces that allow many residents to live and work in the same place. As part of the Transit Village Area Plan, the neighborhood is slated for light rail service in the future.

Contact: City of Boulder Planning and Development Services (303) 441-1880

http://www.bouldercolorado.gov/files/PDS/Transit%20Village/TVAP%20final%20draft/transit_village_area_plan_low.pdf

Madison Avenue, Cleveland, Ohio

Relevance for North SODO: Industrial zone, mass transit, development pressure, mix of uses, pedestrian interface

Lessons: This redevelopment plan for Madison Avenue in Cleveland, Ohio focuses on integrating industrial, commercial, and residential uses along an underused corridor. Strategies include relocation of incompatible uses, renovation of blighted buildings, and extensive streetscape improvements to enhance the pedestrian experience and buffer remaining industrial uses.

Contact: City of Cleveland City Planning Commission (216) 664-2210; Cudell Improvement, Inc. (216) 228-4384; Detroit Shoreway Community Development Organization (216) 961-4242

http://www.cudc.kent.edu/projects_research/projects/madison_avenue_poster.pdf

City of San Francisco “Better Streets” Program

Relevance for North SODO: Pedestrian-friendly, mixed use industrial corridors

Lessons: The City of San Francisco has an industrial mixed-use district, and has incorporated streetscape plans into their “Better Streets” program. The following PDF contains strategies for creating mixed-use industrial corridors that are pedestrian friendly and visually attractive, challenging the notion that industrial areas are, by definition, dead zones for social interaction.

Contact: Adam Varat, San Francisco Planning Department (415) 558-6405

<http://www.sf-planning.org/ftp/BetterStreets/docs/0613-IndustrialMU-01gp.pdf>

Los Angeles Industrial Mixed-Use Studies

Relevance for North SODO: Industrial zone, mass transit, industrial employment

Lessons: The popular Fashion District shows that multifamily and light industrial uses can coexist, with job production flowing from production, sales, and goods movement and storage industries. This is not a manufacturing district, but the majority of the area is zoned for industrial uses and it has become notable for attracting creative, avant-garde types.

Contact: Bryan Lobel, Interface Studio (Seattle) (310) 228-7591

http://www.spa.ucla.edu/UP/webfiles/Lobel_exam.pdf

San Francisco Production Distribution and Repair Districts

Relevance for North SODO: Industrial zone, mass transit, flex-tech space

Lessons: The City of San Francisco has zoning provisions for Production, Distribution, and Repair districts. These neighborhoods tend to be lively and vibrant, and one of the keys to success has been a set of design guidelines that encourages the creation of flexible buildings, not buildings specifically created for industrial use but that are appropriate for a range of activities related to both living and working.

Contact: San Francisco Planning Department (415) 558-6378

<http://www.andnet.org/storage/pdfs-cp/Industrial%20Mixed-Use%20Zoning.pdf>

<http://www.sf-planning.org/index.aspx?page=1677#3>

<http://sf-planning.org/Modules/ShowDocument.aspx?documentid=4893>

Norfolk Industrial Conservation District, Norfolk, Virginia

Relevance for North SODO: Industrial zone, mass transit, industrial land retention

Lessons: Norfolk has prioritized industry in certain neighborhoods subject to intense redevelopment. The creation of conservation districts privileges industry and attracts companies that benefit from co-location and economies of scale, providing a boost to the city's economic performance.

Contact: Norfolk Department of Development (757) 664-4338

<http://nordev.ipower.com/businessdistricts/businessandtech/midtownindustrial.php>

New York Industrial Retention Network (NYIRN), New York, New York

Relevance for North SODO: Industrial zone, industrial land retention

Lessons: NYIRN works to retain industrial uses, enhance manufacturing space, and attract green manufacturing and creative jobs to New York. The organization's advocacy efforts have led to the creation of Industrial Business Zones in the city, and ways to accommodate responsible, cooperative mixing of industrial and other uses.

Contact: Samuel Biele-Fisher (718) 230-6895 or Amy Anderson (718) 637-8654

<http://prattcenter.net/nyirn>, <http://mas.org/presscenter/publications/making-it-in-new-york/>

Back Streets Program, Boston, Massachusetts

Relevance for North SODO: Industrial zone, industrial business retention

Lessons: The goal of the Back Streets program is to support Boston's small and medium-sized industrial and commercial companies by creating the conditions in which they can grow and prosper, and attract new manufacturing and commercial businesses to the city.

Contact: Salvatore DiStefano (617) 918-4338

<http://www.bostonredevelopmentauthority.org/EconDev/Backstreets.asp>

Baltimore Maryland's Maritime Industrial Zoning Overlay District (MIZOD)

Relevance for North SODO: Industrial zone, industrial land preservation, Port access

Lessons: The MIZOD was created by the City of Baltimore to protect frontage land along the harbor that had harbor access of at least 18 feet of draft. The overlay was carefully crafted to preserve the most vulnerable and critical areas of deep water frontage for current and future freight use.

While controversial at the time of passage, the MIZOD has emerged as an effective planning tool, and was most prominently endorsed when a 10-year extension of the original authorization was approved in 2009 that solidified the status of the MIZOD through 2024. At the time of this writing, the maritime industrial zone is being considered as a new underlying zoning district that will no longer sunset.

Contact: Jill Lemke (410) 396-1440

Manufacturing-oriented Transit Zones, Chicago, Illinois

Relevance for North: Industrial uses, mass transit, job creation and living wages

Lessons: Nationally, attention to neighborhood development around transit has focused on mixed-use development with residences, street-level retail and, occasionally, office space. This paradigm ignores the fact that much vacant land within station areas is strictly zoned for manufacturing or commercial purposes that could attract businesses offering living wages. Furthermore, job creation near transit can lead to more destinations along a corridor, creating demand for transit outside of the central business district (CBD) and, conceivably, in a reverse-commute direction during peak and off-peak travel times. This would spread ridership out along the system and make more optimal use of its carrying capacity over the course of the day.

Contact: Maria Choca-Urban, maria@cnt.org

<http://www.cnt.org>

APPENDIX E. WORKS CONSULTED

Organisation for Economic Co-operation and Development. Organisation for Economic Cooperation and Development, 2008. 0. 3 Feb 2012.
<<http://titania.sourceoecd.org/vl67405818/cl=15/nw=1/rpsv/factbook/070101.htm>>.

Department of Revenue. Department of Revenue, 2010. 0. 3 Feb 2012.
<<http://dor.wa.gov/content/FindTaxesAndRates/TaxIncentives/IncentivePrograms.asp&xgt;>>.

Bernstein, Scott. "Next Stop: New Jobs." *Center for Neighborhood Technology*. Center for Neighborhood Technology, 2011. Web. 3 Feb 2012.
<<http://www.cnt.org/repository/NSNJ.pdf>>.

"Baltimore Maritime Industrial Zoning Overlay District." *Envision Freight*. Envision Freight, n.d. Web. 3 Feb 2012.
<http://www.envisionfreight.com/issues/pdf/MIZOD_case_study.pdf>.

Meade, Peter. "Boston's Planning and Economic Development Agency." Boston Redevelopment Authority. Boston Redevelopment Authority, n.d. Web. 3 Feb 2012.
<<http://www.bostonredevelopmentauthority.org/EconDev/Backstreets.asp>>.

Hall, Richard Eberhart . "Baltimore City: Smart Growth Successes." *Maryland Department of Planning*. Maryland Department of Planning, 2010. Web. 3 Feb 2012.
<http://www.mdp.state.md.us/PDF/OurProducts/Publications/OtherPublications/SG_Successes_BACI.pdf>.

"Los Angeles' Industrial Land: Sustaining a Dynamic City Economy." *City of Los Angeles*. Department of City Planning, 2007. Web. 3 Feb 2012.
<http://cityplanning.lacity.org/Code_Studies/LanduseProj/Industrial_Files/Attachment_B.pdf>.

"Regional Growth Strategy." *Metro Vancouver*. Metro Vancouver, 2011. Web. 3 Feb 2012.
<<http://www.metrovancouver.org/PLANNING/DEVELOPMENT/ECONOMY/INDUSTRIALLANDS/Pages/default.aspx>>.

"Strip District Improvement Strategy." Neighbors in the Strip. Neighbors in the Strip, 2011. Web. 3 Feb 2012.
<http://www.neighborsinthestrip.com/nits/StripPlan_FinalDraft.pdf>.

"Zoning Matters in Minneapolis." *Zoningmatters.org*. Philadelphia Zoning Code Commission, n.d. Web. 11 Apr 2012. <<http://zoningmatters.org/facts/cities-minneapolis>>.

"Zoning Administration." *City of Minneapolis*. City of Minneapolis, 2011. Web. 11 Apr 2012. <<http://www.ci.minneapolis.mn.us/zoning/>>.

"Home on the Hiawatha." *Metropolitan Council*. Metropolitan Council, 2011. Web. 11 Apr 2012.
<http://www.metrocouncil.org/directions/transit/transit2006/hiawatha_TODMar06.htm>.

"Industrial Lands Strategy Implementation: Summary of I-2 Zoning Changes." *City of Vancouver*. City of Vancouver, 1996. Web. 11 Apr 2012.
<<http://vancouver.ca/commsvcs/planning/cityplan/indlands.htm>>.

"Zoning and Development By-Law." *City of Vancouver*. Community Services, 2007. Web. 11 Apr 2012.
<<http://vancouver.ca/commsvcs/planning/zoning.htm>>.

Burpee, Heather. "Burrard Slopes IC Districts Rezoning Policies ." *City of Vancouver*. Director of Planning , 2007. Web. 11 Apr 2012.
<<http://vancouver.ca/ctyclerk/cclerk/20071129/documents/pe5.pdf>>.

Interview with Jill Lemke (Planning staff for City of Baltimore), April 2012.

Interview with Paul Mogush (Planning staff for City of Minneapolis), April 2012

Interview with Paul Nolan (Planning staff for City of Vancouver), April 2012