

OK Site Certification Program Development Type Overview

Light Industrial / Assembly

General Description

Light industrial facilities are very attractive economic development projects for three reasons:

- It creates a large numbers of jobs, many of which are well paid.
- It do not create stress on local infrastructure, other than traffic possibly
- It usually represents a significant capital investment and increasingly includes a technology component.

Light industrial /Assembly production facilities vary widely in terms of project criteria. Typical industries in this category include Tier 2 automotive and various consumer product assembly operations. While the typical Tier 2 supplier pays a higher wage and requires a large labor force, the majority of consumer products assembly operations have the ability operate in a variety of environments and pay wages consistent with the area average.

The specific project criteria required relates directly to the type of industry, customer/supplier relationships, the objectives of the manufacturer, and other influencing factors such as parent/subsidiary interaction. Auto component production and assembly can represent large facilities and investment costs, whereas the packaging of a food substance or low-tech consumer product may constitute a much smaller investment and facility. For purposes of this exercise a *mid-sized* light industrial/assembly operation is used to describe the project.

A light industrial assembly/production facility may employ between 100 – 2,500 people, and operate 2-3 shifts/day 5-7 days/week. A wide range of building sizes are also represented in this category, from as small as 50,000 square feet up to 800,000+ square feet. The site size is selected according to the building footprint and surrounding land use. Typical mid-sized operations employ 300-400 people and have a facility of 125,000 to 150,000 square feet. Capital investments from \$10-30 million are common, with larger investments being the exception rather than the rule. The investment costs fluctuate primarily due to the differences in machinery and equipment investment.

Market Analysis

Typical industries in the light industrial category include Tier 2 Automotive, Energy, and Food Processing. As stated, there is a definitive high-end and low-end of this market. Consumer products generally follow the trend of the U.S. economy as a whole and, as a result are positioned very well for the next 10-15 years as the North American consumer continues to spend a great deal of disposable income on various consumer goods.

OK Site Certification Program Development Type Overview

Light Industrial / Assembly

Hiring of wage and salary workers in Oklahoma's energy sector has expanded by more than 10 percent, or 3,000 workers, the past two years, while total employment statewide contracted by 27,000 in the same period. Furthermore, the reported job numbers understate the true employment and earnings impact of the energy sector since more than half of all oil and gas-related employment in Oklahoma comprises self-employed proprietors who typically are not counted in the major employment data surveys. Employment in the Natural Resources & Mining sector will continue to thrive along with high prices in the energy complex and is expected to expand by an additional 6.1 percent in 2005.

Small and medium-sized firms generated slightly under one-third (31.4 percent) of Oklahoma's total exports of merchandise in 2001. In percentage terms, Oklahoma's fastest-growing manufactured export category is beverage and tobacco products, which grew over 6,600 percent from a modest \$34,000 in 1999 to \$2.3 million in 2003.

Minimum site acreage

The minimum site acreage is commonly around 15 acres. However large campuses are often built for electronic components assembly operations. Site expansion capability is very important and parking and truck staging areas may be quite large.

Appropriate topography

Site topography should generally feature little elevation change, and be outside a 100-year FEMA flood plain.

Industrial sites of this size should not have major elevation changes to minimize site development costs. Site topography has a direct influence on the up-front capital costs. Poor topography not only increases site preparation costs but also can create delay fast-track projects. Risk of cost overruns and potential construction delays due to poor topography can eliminate a site, or can be the deciding factor between two otherwise equal locations.

OK Site Certification Program Development Type Overview

Light Industrial / Assembly

Utility needs

Utility needs vary by industry. The following are examples of what may be required.

Electricity

- Kilowatt (kW) demand: 2,000 kW
- Kilowatt Hour (kWh) Usage: 1,400,000 kWh/month
- Dual Feed preferred

Natural Gas

- Usage: 4,000 mcf/month

Water

- Usage: Up to 150,000 gallons/day
- Dual Sourcing Preferred
- Municipal System Preferred

Sewer

- Flow up to 150,000 gallons/day
- Municipal System Preferred

Telecommunications

- T-3 line minimum, Fiber optic preferred

Transportation requirements

Sites should be located within 10 miles of an interstate, or limited access four-lane U.S. highway with weight load to 30,000lbs. Routes that travel through highly congested commercial, retail or residential routes should be avoided. Market within 300 miles is of high interest.

Rail access is desirable. Avoidance of at-grade crossings for site entry/exit is recommended.

Labor/Workforce needs

The typical work force is 100 - 2,500 employees. Electronics assembly and light manufacturing puts a high priority on finding a good-quality entry-level work force at a fairly low starting wage. Most likely a tiered wage rate would address entry level through skilled employees. The average wage rate would reflect the local prevailing wage in similar industries and have 30%-40% benefit package depending on the size of the parent company. Entry level positions, including the unskilled workforce, features employees with little or no manufacturing experience. Semi-skilled labor may include employees with an associate's degree in a manufacturing-related field or two to three years of experience working in a manufacturing operation with some exposure to, for example, CNC equipment or maintaining machinery. Examples of skilled employees are employees with extensive experience in CNC equipment or machine maintenance.

OK Site Certification Program Development Type Overview

Light Industrial / Assembly

Light industrial facilities may start with a limited number of employees and may be seasonal. A community can expect the facility to grow to full capacity over the first two years, and increase wages gradually for every three-month period during that time. Benefits may vary widely depending on the seasonal nature of the industry, and the number of part-time workers employed. Starting wages may not reflect what the average wage will be after the facility has been in operation from 3-5 years.

The following table shows the typical occupations that may be found in a light industrial / assembly facility. The table compares 2004 Oklahoma mean hourly wages with 2004 national mean hourly wages. *Please refer to the Application Package for the detailed “Comparison of Wages” and “Description of Occupations” sections.*

| Light Industrial / Assembly | | OK | National |
|------------------------------------|--|-----------|-----------------|
| SOC Code 17-3023 | Electrical and Electronic Engineering Technicians | \$20.22 | \$22.26 |
| SOC Code 17-3026 | Industrial Engineering Technicians | \$25.16 | \$20.96 |
| SOC Code 17-3027 | Mechanical Engineering Technicians | \$17.53 | \$20.87 |
| SOC Code 51-4012 | Numerical Tool and Process Control Programmers | \$18.76 | \$19.31 |
| SOC Code 43-9012 | Word Processors and Typists | \$11.12 | \$13.48 |
| SOC Code 49-9041 | Industrial Machinery Mechanics | \$16.27 | \$18.78 |
| SOC Code 49-9043 | Maintenance Workers Machinery | \$15.49 | \$15.79 |
| SOC Code 49-9042 | Maintenance and Repair Workers, General | \$12.54 | \$14.77 |
| SOC Code 47-2111 | Electricians | \$18.31 | \$20.33 |
| SOC Code 51-4081 | Multiple Machine Tool Setters, Operators, and Tenders, Metal and Plastic | \$11.35 | \$14.06 |
| SOC Code 51-7051 | Electrical and Electronic Equipment Assemblers | \$12.16 | \$11.68 |

Proximity of support facilities

Proximity to suppliers of general business services is strongly preferred. Support services includes (but is not limited to) janitorial services, couriers, temporary staffing agencies, and office/industrial supply warehouses. Contractors able to provide support for light industrial tenants are advantageous. The type of contractor required ultimately depends on the operations taking place at the facility in question.

Site development barriers & issues

Site configuration should be square to slightly rectangular with little to no outparcel intrusions effecting site utilization.

Site ownership vs. lease

Ownership of both the site and facility is desired; however, creative financing for incentive purposes could be considered.

Surrounding land use issues

Industrial atmosphere with surrounding land zoned for like uses. Residential, commercial or retail areas should be buffered from facility/park. Location of landfills, sewage lagoons, or wastewater treatment plants, etc., either adjacent to or in close proximity to the site are not preferred.

Other criteria critical to the selection

Refer to project evaluation criteria (musts & wants) which follow.
