

OK Site Certification Program Development Type Overview

Warehouse / Distribution Park

General Description

Warehouse and distribution facility strategies are becoming increasingly important for all industries. Hundreds of facilities are being built to serve regional demand for consumer products. The reason for this expansion is primarily because companies are better informed about their logistics cost structure.

Logistics operations are also getting larger. Facilities now comprise inventory, order processing and technical support. Warehousing and distribution is no longer low-tech, and some operations require quite sophisticated technology infrastructure.

New warehouse and distribution facilities may range in size from 200,000 to 2,000,000 sq. feet. Buildings usually require a minimum 30' clear height span, minimum 40' x 40' bays, and a minimum of 45 dock doors. The ability to expand in at least one direction is greatly preferred. Employment depends on automation levels and may range between 200 and 1,000 workers. Total investment also has a broad range but \$45 - \$60 per square foot is typical for the building. Land can vary depending on the proximity to major highways and interstates.

Market Analysis

The ability to collect and interpret information increases each day. A company's ability to manage their information has a direct correlation with the size and scope of its warehouse & distribution operations. Several companies, including many automotive assembly plants are addressing their supply chain issues across the globe. Logistics costs represents approximately 11% of the U.S. Gross National Product (2002 figure), totaling \$910 billion, and is targeted to grow at a more aggressive rate for the next several years if interest rates continue to rise.

Today's competitive distribution operations have caused many companies to seek larger regional hubs to lower product moving cost to assembly points or to the end-user. Increased private and commercial traffic on the nation's highways is just one motivation for companies to search for lower-cost transportation solutions. Companies can realize a cost savings of 15% to 25% by optimizing their distribution network. The hunt for a new logistics location begins with transportation needs: adequate road, rail, air, and water services; avoidance of traffic congestion; improved distances to markets; close networks with the manufacturing units; and rapid access to suppliers.

Oklahoma's geography is very favorable for warehouse and distribution operations because of its physical proximity to over 40% of the U.S. consumer market. The two major international airports (Oklahoma City and Tulsa) aid in the distribution of product by air, and Oklahoma continues to develop an extensive road network to serve the South-West, South-East, and Mid-South consumer markets.

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Minimum site acreage

The minimum site acreage for this program is 50 acres.

Appropriate topography

Site topography should generally feature little elevation change and be outside a 100-year FEMA flood plain. The site should ideally be at the road grade elevation.

Industrial sites of this size should not contain major elevation changes to reduce site development costs. Site topography has a direct influence on the up-front capital costs. Poor topography not only increases site preparation costs, but more importantly, can create delays on a fast-track project. Risk of cost overruns and potential construction delays due to poor topography can be a reason to eliminate a site, or be a factor in choosing between two otherwise equal locations.

Utility needs

The typical distribution center spends about 70 percent of its energy budget on electricity to illuminate and air condition the facility and to operate automated warehousing equipment and office machines. Refrigerated warehouses are considerably more energy intensive. The remainder is spent on electric or natural gas heat. For today's highly automated warehouses the access to telecommunications infrastructure is very important. Facilities are quickly incorporating methods of collecting and processing orders online.

Electricity

- Kilowatt (kW) demand: 2,500 kW
- Kilowatt Hour (kWh) Usage: 1,500,000 kWh / month

Natural Gas (LP is acceptable)

- Usage: 1,200 mcf / month

Water

- Usage: up to 20,000 gallons / day
- Municipal System Preferred

Sewer

- Usage: up to 20,000 gallons / day
- Municipal System Preferred

Telecommunications

- Minimum T-1 line required, fiber optic line preferred

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Transportation requirements

Interstate access is critical. The site must be within 5 miles of an Interstate, or limited access, 4-lane U.S. highway, via truck route. Access routes should be designated for 53' trucks. Access to an airport for overnight air-service delivery is greatly preferred for many operations. Rail service is preferred.

Labor/Workforce needs

Warehouse and distribution facilities have not traditionally required highly skilled employees. However, warehouse and distribution facilities are becoming more complex with the advent of e-commerce. The ability to read and process order specifications online is increasingly important. The work force is comprised of approximately 20-25% management/technical supervisors, 70-75% warehouse/distribution packers and packaging personnel, and 5-10% machine/assembly line maintenance. The warehouse/distribution facility would likely operate 3-shifts per day, 7 days per week.

Starting wages are often below the average wage in an area, although they are competitive for the warehouse and distribution facilities within a 75-mile radius. Starting wages increase marginally as the facility becomes more stable and operational. Part-time employees are an important aspect of the operation, and they may lower the average wage of the facility. Benefits are usually between 30-40% for salary and 25% for hourly employees.

The following table shows the typical occupations that may be found in a warehouse and distribution 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.*

Warehouse & Distribution		OK	National
SOC Code 43-9012	Word Processors Including Typists	\$11.12	\$13.48
SOC Code 49-9041	Industrial Machinery Mechanics	\$16.27	\$18.78
SOC Code 47-2111	Electricians	\$18.31	\$20.33
SOC Code 51-4081	Multiple Machine Tools Setters, Operators, and Tenders, Metal and Plastic	\$11.35	\$14.06
SOC Code 51-2099	Assemblers and Fabricators, All Other	\$9.12	\$11.90
SOC Code 53-7051	Industrial Truck and Tractor Operators	\$11.62	\$12.78
SOC Code 53-7064	Packers and Packagers, Hand	\$7.52	\$8.25

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Proximity of support facilities

Proximity to suppliers of general business services is strongly preferred. Support services could include but are not limited to trucking companies, truck mechanics/service providers, janitorial services, couriers, temporary staffing agencies, and office/industrial supply warehouses. Restaurants, banks and other commercial operations within a reasonable distance are also preferred. Contractors that provide support for warehouse/distribution facilities are advantageous.

Site development barriers & issues

Site configuration should be square to slightly rectangular with little to no outparcel intrusions affecting site utilization or traffic flow patterns.

Site ownership vs. lease

Warehouse/distribution facilities are generally owned.

Surrounding land use issues

High truck traffic, for both ingress and egress to/from the site requires direct access routes to the U.S. national highway system avoiding high congestion areas, routes through towns or school areas, etc. Surrounding land use should allow for 24-hour operation of facilities with little noise level restrictions; i.e., for operating heavy truck engines.

Other criteria critical to the selection

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